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THE RAILROAD MAN'S MAGAZINE

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MASCOTS OF THE RAIL

The Master Mechanic

By ROBERT H. ROGERS

A Lesson in Railroad Construction

JULY

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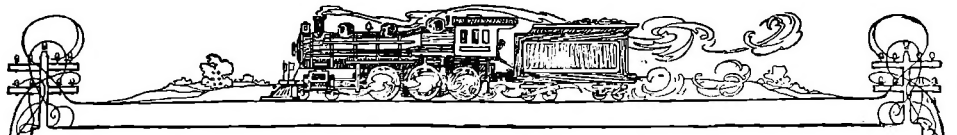

THE RAILROAD MAN'S MAGAZINE

CONTENTS FOR JULY

SERIALS.

The Man Who Wasn't Game. Part I.	William S. Wright	219
President of the Line. Part III.	John Wellsley Sanders	293
Without Lights. Part V.	J. Aubrey Tyson	331
A Heart of the North. Part IV.	George Van Schaick	365

SHORT STORIES.

Nailing Ninety-Four. (Illustrated.)	Robert Fulkerson Hoffman	203
The Gold Coupler	Augustus Wittfeld	234
Boglip's Canine Party	C. W. Beels	249
Walworth, the Snob. (Illustrated.)	Robert T. Creel	265
Stealing an Armored Train. (Illustrated.)	Frederick J. Liesmann	273
Taming Bad Bill Goode. (Illustrated.)	Emmet F. Harte	305
Smoke's Lost Independence. (Illustrated.)	Horace H. Herr	319
The Biograph Bandits. (Illustrated.)	Henry H. Tinkham	355

SPECIAL ARTICLES.

Mascots of the Rail. (Illustrated.)	Walter Gardner	193
The New Home of the New York Central. (Illustrated.)	Stephen Angus Cox	212
Observations of a Country Station-Agent. No. 26. (Illustrated.)	J. E. Smith	226
Ten Thousand Miles by Rail. No. 2. More Dramas of Dixie Land. (Illustrated.)	Gilson Willets	237
Help for Men Who Help Themselves. No. 33. The Master Mechanic.	Robert H. Rogers	256
When Rules Were Scarce	E. A. Spears	280
The First Railroad Across South America	George W. Grant	281
Taking Orders from Death. (Illustrated.)	Peter Mulligan	286
James H. Lawrence, Oldest Railroad Wage-Earner. (Illustrated.)	Nathan E. Burke	301
The Science of Rate-Making	Thaddeus Stevens	313
Making Up Lost Time	John Walters	325
The Flight of the Coyote Special. True Story. No. 46. (Illustrated.)	C. E. Van Loan	342
Old-Timer Tales. No. 6. The Evil Genius of the 888	Arno Dosch	351
Handling 1200 Trains a Day.	T. S. Dayton	361

VERSE AND DIVERSE.

The Lure of the Rails. (Poem.)	Leslie Curtis	218
By the Light of the Lantern		268
The Railroad Man's Brain Teasers		376
The Sunny Side of the Track		377

MISCELLANEOUS.

Government Meals, 75 Cents	202	Bronze Instead of Brass	312
An Engineer Rhymester	211	Train Despatching by Telephone	329
Risks Life to Save Child	217	Third Oldest Pennsy Employee Dead	330
Tie Farms for the Pennsylvania	236	Railroads To Take Up Farming	341
The Fastest Thing on Wheels	248	A Tell-Tale That Is Popular	350
Why the Chief Clerk Laughed	264	Grade Crossings Are Disappearing	354
Swift Business	264	Pennsy Instruction Cars	364
A School for Stokers	292	On the Editorial Carpet	379

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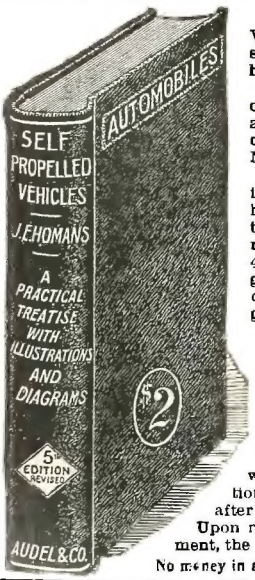

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THE RAILROAD MAN'S MAGAZINE

Vol. XII. JULY, 1910. No. 2.

Mascots of the Rail.

BY WALTER GARDNER.

BASEBALL-PLAYERS, soldiers, and sailors are not the only men who attempt to ward off their Jonahs and bring good luck to themselves by keeping mascots. Railroad men from the beginning have shown a leaning toward animal protégés; and, though a goat trailing his whiskers about a roundhouse, or a dog riding in an engine-cab, would seem apt to prove anything but a hoodoo-killer, the little god of luck sometimes works things out peculiarly.

In the days when discipline was not so rigid as at present, and so long as the men got their trains over the road on time, the officials did not concern themselves particularly about what the men did. A cock-fight in the roundhouse-pit did not bring about the severe jacking up that it would now. In the early seventies, and even later, mascots were privileged characters, and train-crews often carried them on their runs from one division to another.

How a Goat Butted Into a Romance, and How the Strange Intuitions of a Cat and Dog Made History on the St. Louis, Iron Mountain and Southern.

"TAKE the deuce and hook on to the wrecker, Jimmie."

"What's the matter now?"

"Fifteen is in the ditch on Lone Tree Hill."

"Wonder 'twasn't 17. That's the hoodoo train on this road. What's the matter with 15?"

"Broke in two at the summit, and, about half-way down, the front trucks of the tail-end climbed the rail."

"He must have piled them well to need the wrecker."

"What can you expect when the crew haven't a mascot?"

"Oh, come off the perch, Walt. What's a mascot got to do with it?"

"Oh, nothing, so far as I know. But you know that is the only train on this road whose crew hasn't a mascot of some kind."

"I don't believe in this mascot business. I don't say there is anything in it; but, back in the seventies, the boys at the Fredericktown roundhouse had a great assortment of animals — a little zoo of their own."

"Well, what of it?"

"You know that Fredericktown was the division on the Belmont branch of the St. Louis, Iron Mountain and Southern. At that time the furnaces at Iron Mountain, on the Texas branch, were running full time, turning out pig, and the result was that traffic was constantly increasing. The boys had pigs, dogs, cats, goats, and a rooster."

"Fine lot of farmers that gang must have been."

"They were all to the good, just the same. Well, one of the chief moguls around that roundhouse was a full-grown goat that the boys had named Murphy, after the roadmaster. Murphy wore a goatee, and so did the goat. Murphy did not like it, but he knew better than to cheep. So Murphy, the goat, ranged in and out of the roundhouse at his own sweet will, and Murphy, the roadmaster, never showed up there if he could help it.

"The boys had teased the goat until they had him trained so that the unfortunate who had occasion, in the course of his work, to stoop to pick up anything, while Billy was in range, was sure to get a salute.

"Jerry Phalen, who was firing the 30, came in on No. 1 from St. Louis. While the hostler was setting the 30 in her stall, Jerry was shucking overalls and jumper, and getting ready to wash up.

A Goat with a Purpose.

"Jerry wore a red flannel undershirt, and when the engine was set in her stall he took the tender bucket and drew it full of water; then climbed down to the floor. It being a cold day, he picked up a link and put it in the stove until it was red hot, then dropped it into the pail of water, heating it up so he could have a good wash.

"Murphy sat on his hunkers, a few feet from the stove, chewing his cud and wagging his beard. He paid no attention to Jerry, and Jerry did not give him a thought.

"Jerry set his bucket of water on the floor some little distance from the stove, and in the position he occupied he was just forward of the 30's leading drivers. He got a bar of soap, and had just worked up a nice lather, which he was applying to his head and neck, when Murphy landed.

"He struck Jerry square, and Jerry went over the bucket, under the connecting-rod, and into the pit. The flooring was even with the crown of the rail on the outside of the pit, and the planking was slippery with the grease that had dripped from the boxes.

"Jerry's hands were also soapy, so there was nothing he could catch to check himself. He struck the opposite side of the pit below the rail, the pit being walled with brick, and fell to the bottom in a crumpled heap.

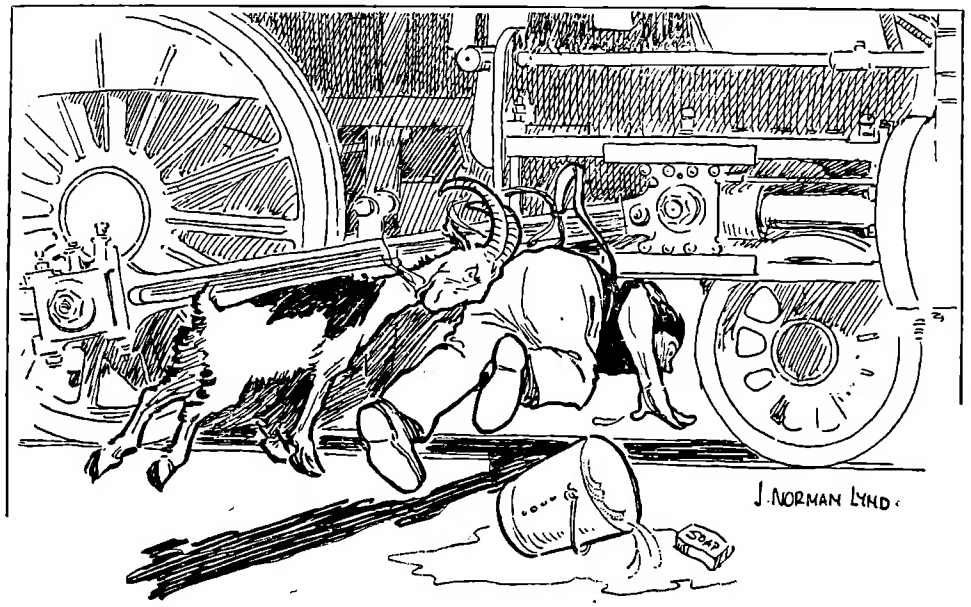
Billy Meets Murphy.

"The boys thought that he was killed, and if he had struck the side of the pit with his head he would most assuredly have broken his neck. As it was, he struck with his shoulders, and when the boys got him out from under the engine he was found to be only stunned.

"Just across the street was a grocery-store, and over this was the Railroad Hotel, kept by the widow of a railroader and her daughters. Her house was always filled to capacity by the railroaders. Murphy, the roadmaster, stopped there when in town; and Murphy, the goat, was a privileged character. In fact, he was on the best of terms with the landlady and her daughters.

"The work was too heavy for the old lady and the girls, and they hired some help. The newcomer was a jolly Irish girl named Maggie Malone, but the railroaders at once dubbed her "Biddy," and Biddy she was to the end of the chapter. Now, Biddy had not been properly introduced to Murphy, the goat, and did not know that he was a character of importance in the back yard; so, one day, when she found him turning over an assortment of tomato and fruit cans, she started after him with a broom.

"Now, Murphy, like all sensible masculines, had a wholesome respect for a broom, especially when it was wielded by a buxom Irish girl. He gravely and sedately retired to the alley where he stood wagging his beard and surveying Biddy closely until she vanished into the kitchen, when he returned to the roundhouse. Murphy was sensible, and could



"JERRY WENT OVER THE BUCKET AND INTO THE PIT."

take a hint at the end of a broomstick as well as any one, so he cut out his visits to the Railroad Hotel.

"Biddy" Makes a Good Target.

"Biddy had forgotten all about Murphy until, one day, there came an order for an extra train-crew and engine 36 to take a special over the south end. Word was sent to the boarding-house to have the dinner kettles delivered at the round-house. So a good lunch was put up, and Biddy was sent to the house with it.

"She handed it up to Dennis O'Brien, the fireman, the two chaffing the while, and Dennis daring her to climb into the engine. But Biddy knew the work was too pressing, and, telling him she would take that dare some day when she had more time, she started back to the hotel.

"On the way she had to pass the coal-shute, and, stopping, she placed her foot on the rail and stooped over to tie a shoe-lace, just as Murphy came out from under the coal-shute. He wasn't the kind of a goat to decline a challenge; so he lowered his head, gathered his feet together, and launched his body-full at the unsuspecting Biddy. He struck her fair, and she pitched forward into the cinder-pit.

"Murphy at once meandered around the sandhouse, and Biddy scrambled to her feet just in time to see Dennis, who was doing his level best to keep a straight face, offering to help her out. Now, Biddy had not seen or heard anything of Murphy, the goat; so she sailed into Dennis, accusing him of bumping her into the cinder-pit, and informing him in choice Gaelic that he was no gentleman.

"The more Dennis tried to explain the more voluble she became, and finally, as he thought of her flying leap into the cinder-pit, he could restrain himself no longer, and sat down on a wheelbarrow and fairly yelled. This was adding insult to injury, and Biddy stalked off, highly offended, followed by advice from Dennis not to wear barber-pole stockings thereafter.

Murphy's Downfall.

"Murphy showed poor judgment. He was no respecter of persons, and this led to his downfall. One day, Master Mechanic Haynes came down from Carondelet on a tour of inspection, and, after he had gone through the 'rip' shop, he was looking over the round-house, piloted by the roundhouse fore-

man. Engine 48 was in one of the stalls —a big, eight-wheel freight-engine. Her right cylinder-cocks were not working smoothly for some reason, and, just as the two came up to the engine, the roundhouse foreman was handed the engineer's report. The two men stopped by the cylinder, and, with his left hand on the pilot-beam, Haynes leaned over to look at the cylinder-cocks just as Murphy came around the nose of the pilot.

"Murphy backed off a few feet, and hit the master mechanic fairly and squarely, sending him down on his hands and knees, barking his hands and seriously fracturing his dignity. Then the storm broke. The air fairly sizzled, and Haynes showed a command of strong language that none of the boys had ever imagined he possessed. Murphy passed on, calmly chewing his cud and wagging his beard, as innocent as a babe; but his fate was sealed. The word was passed to remove Murphy from this vale of tears, and from thenceforward and forever, no goats were to be allowed in or around any roundhouse on the system.

"The boys were sorely tried. They could not bear the idea of death for Murphy, and the question of selling him was not to be considered, for Murphy was too old and tough to make into mutton, and not a man, from roundhouse foreman to call-boy, could be found who would act as executioner.

"A consultation was held, and it was decided that Dennis O'Brien and Mike Fitzgerald should take Murphy aboard the 36 when she pulled out on No. 1 over the south end, and at a favorable opportunity, where they thought Murphy was likely to find a good home, drop him overboard and let him shift for himself.

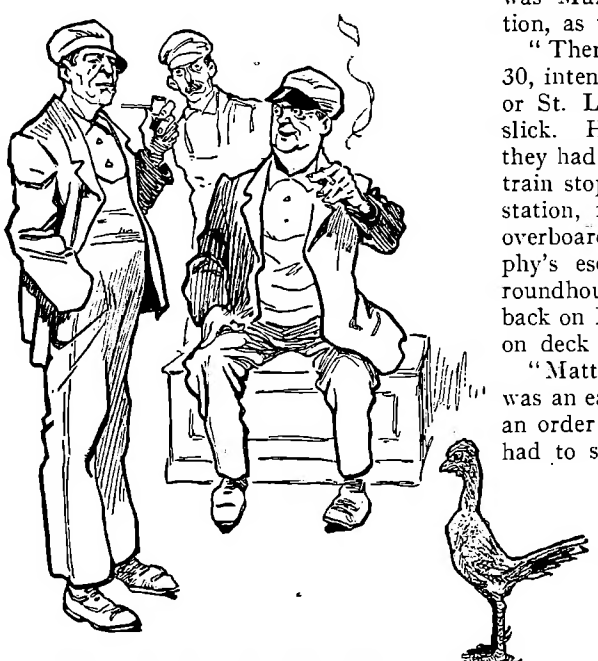
"They got Murphy up into the gangway of the 36 with no trouble, but Murphy was not inclined to stay; so they tied him to the brakestaff with a cord and pulled out on No. 1 on time.

"Now, Mike and Dennis should have known enough about goats to know that nothing but a chain will hold the brute if he takes a notion to leave; so, when No. 1 stopped at the depot at Marquand, away went Murphy, with the frazzled end of the cord, which he had chewed in two, still flying from his neck.

"The boys thought it was all right, and wired from the next stop that Murphy had got away and deserted at Marquand, and went on to the end of the run, coming back the next day on No. 2. When the 36 was run into her stall, there was Murphy, superintending the operation, as was his usual custom.

"Then Jerry Phalen took him on the 30, intending to carry him to Carondelet or St. Louis. But Murphy proved too slick. He worked out of the dog-chain they had tied him up with, and when the train stopped at Mine La Motte, the first station, four miles north, Murphy went overboard and took to the timber. Murphy's escape was duly reported to the roundhouse gang, and when the 30 came back on No. 1, the next day, Murphy was on deck as usual.

"Matters were getting serious. Haynes was an easy-going man, but when he gave an order it had to be obeyed or somebody had to suffer. The boys did not know what to do. Killing Murphy was not to be thought of; so Will Allen, who was running baggage and express from St. Louis to Belmont, and who had heard of the escapades of Murphy, as, indeed, had every man in the service, suggested a plan.



"HE CHRISTENED IT TIPPERARY."

"No. 1 and No. 2 met at Fredericktown, and had twenty minutes for dinner. So, during the stop, one day, he told the boys to put a tag on Murphy addressed to Frank Johnson, who was running baggage on the Cairo, Arkansas and Texas, the "cat" road, out of Cairo, and he would see him on this trip and arrange with him to take Murphy and pass him on to the next baggageman, and thus get him far enough away so that he could not get back.

"When Allen came north on No. 2, the next day, he told the boys to have Murphy ready for him the next trip—which would be two days later, as he had his lay-over in St. Louis—and that Johnson would transfer him to the Little Rock run at the Little Rock and Memphis junction. So, when he came down on No. 1, Murphy was duly installed in a corner of the baggage-car, and fastened so that it was impossible to get away.

"He was turned over to Johnson, who took him down over the cat road to the Little Rock and Memphis; and the baggageman there took him on to Little Rock. What finally became of Murphy none of the boys ever heard.

A Mix-Up Between Mascots.

"Murphy's successor was a Spanish red game-cock, which a lad living at Mine La Motte, and attending school in Fredericktown, gave to Jerry Phalen. Jerry was very proud of the bird, and boasted that he could lick anything that wore feathers. He christened it Tipperary, and arranged with Biddy that she was to feed him and see that he was taken care of while he was absent on his runs. Biddy in time became very fond of Tipperary, and he was soon a pet in and around the roundhouse, as well as at the boarding-house.

"Dennis O'Brien, who fired the 36, ran opposite Jerry and the 30; and when the 30 was cut from her train and the 36 backed down to hook on, the two used to chaff each other considerably, and Dennis boasted that he had a black game-cock at Belmont that could and would wallop Tipperary.

"As 36 ran on the south end and the 30 on the north end, there did not seem to be much chance for the two to get together; for when Jerry came in Dennis went out, and the boys began to demand that Dennis make good by showing up his game-cock.

"One day Dennis came in on No. 2, and as his engine was set in her stall he climbed down with a crate in his hand in which there was a sure enough game-cock. Dennis told the boys that he was named Donegal, and that Donegal could lick Tipperary any day in the week and not half try.

"Now, some of the boys were from Tipperary, some from Donegal, but the bulk of them were from other parts of Ireland. It was not long before the men were lined up according to their preference, and the majority were in favor of Tipperary. Whether it was a test of the popularity of the two men, or whether the preference was caused by the recollections of the 'ould dart,' was a question that was an open one.

"One day the 30 dropped her crown sheet as she was coming in on No. 1 and went into the 'rip' shop, while another engine took her run for one trip. This was the opportunity that the boys had been waiting for, and the wires soon flashed the news to the boys on both divisions that Tipperary and Donegal were to settle the question as to which was the better bird at two o'clock that afternoon. This time was chosen, for No. 1 and No. 2 were both out of the way, and there was nothing due until 4.30 P.M.

Tipperary Turns the Trick.

"One of the pits in a vacant stall was selected as the battle-ground, and Jerry got down at one end with Tipperary, while Dennis, with Donegal, occupied the other. The enginemen, wipers, station-men, and all the men in railway service who could get away crowded around the pit, and the fight was promptly begun.

"Tipperary was slow, and Donegal forced the fighting, getting in a crack on Tipperary that sent him staggering. Jerry took him up and handled him carefully, but it was plain to all that Tipperary was mad clear through. When the birds were released they went at each other, but neither scored. Then Tipperary, with wings dragging, flew at Done-

gal, and struck him with his left gaff, sending the spur clear through Donegal's head.

"A considerable amount of money had been wagered, not only in Fredericktown, but along the whole branch. The odds were largely in favor of Tipperary, though why was never understood. From that time forward Tipperary was cock of the walk. One morning Biddy went out into the yard and found Tipperary dead, his throat having been cut by some animal, presumably a weasel. Jerry took the body to a taxidermist in St. Louis and had it mounted, and placed it on the boiler-head, above the steam-gage, in the 30's cab.

Cupid Gets Busy.

"Dennis swore that Biddy had hoodooed Donegal because he laughed at her when Murphy butted her into the cinder-pit, but Biddy affirmed that Dennis was a prevaricator and that he was not to be believed on oath.

"Jerry always hit it off pretty well with Biddy though she insisted that he was well named and that he had a failin' for every girl he met. As time went on it seemed to be an open question as to which stood the highest in the graces of the fair Irish girl, Jerry or Dennis. None of the boys could settle the question, for when Dennis was in he and Biddy were always sparring.

"One day Dennis came in on No. 2, and as the 30 backed down and hooked on, he said, just as Jerry swung up on to the footboard:

"'You had better fix it up with that Carondelet girl, Jerry, or you will be left in the race.'

"Jerry told him not to worry about the Carondelet girl, and No. 2 pulled out. Dennis went over to the roundhouse and washed up, then went to the hotel for his dinner.

"That afternoon some of the boys saw him and Biddy going up-town together, but they thought nothing of it at the time, but at the supper-table another girl was waiting on the table and the landlady told them that Dennis and Maggie Malone had been married that afternoon, Dennis had got a two weeks' layoff and they were going to St. Louis on No. 4.

"Jerry was a great fellow for animals, except cats. He never had much use for cats, and his next venture in the pet line after Tipperary's death was a dog, one of these little, yellow, tin-can-to-tail sort of animals.

"He came into the roundhouse at Fredericktown one day, chased by an empty can that some boy had tied to his stub of a tail. He did not have much of a narrative to speak of.

He was just about all in, and as he staggered into the roundhouse with that tin-can continuation thumping behind him, he happened to turn into the stall where No. 30 was standing, the wipers having just fired her up to go north on No. 2.

"This was in the early seventies and in those days it was the practise to get as much brass as possible on an engine. Sand-box, dome, cylinders and steam-chests were brass-jacketed and the firemen were expected to put in their leisure time around the roundhouse in keeping a bright shine on them.

"Engine No. 30 had a fair share of brass about her, and her drivers, truck and tender-wheels were painted a brilliant red. In fact she was as pretty as a country girl at a county fair, but it kept Jerry pretty busy keeping her bright and smart.

Jerry was an Irishman, and while he was fond of the fair sex in general, so far as the boys knew the only things on earth that he really cared for were Harry McQuaide, his engineer, and engine 30.

Just a Yellow Dog.

"Jerry, smoking a short, black, clay pipe, and clad in overalls and jumper, was busily engaged in polishing up a cylinder-jacket when the yellow dog put in an appearance. The brute staggered up to Jerry, sank back on his hunkers, and looking up into the fireman's face, whined piteously.

"Something about the forlorn aspect of the brute, or it may have been the plaintive appeal to his sympathy, attracted Jerry's attention. He took his pipe from his mouth, looked at the dog for a minute, and said:

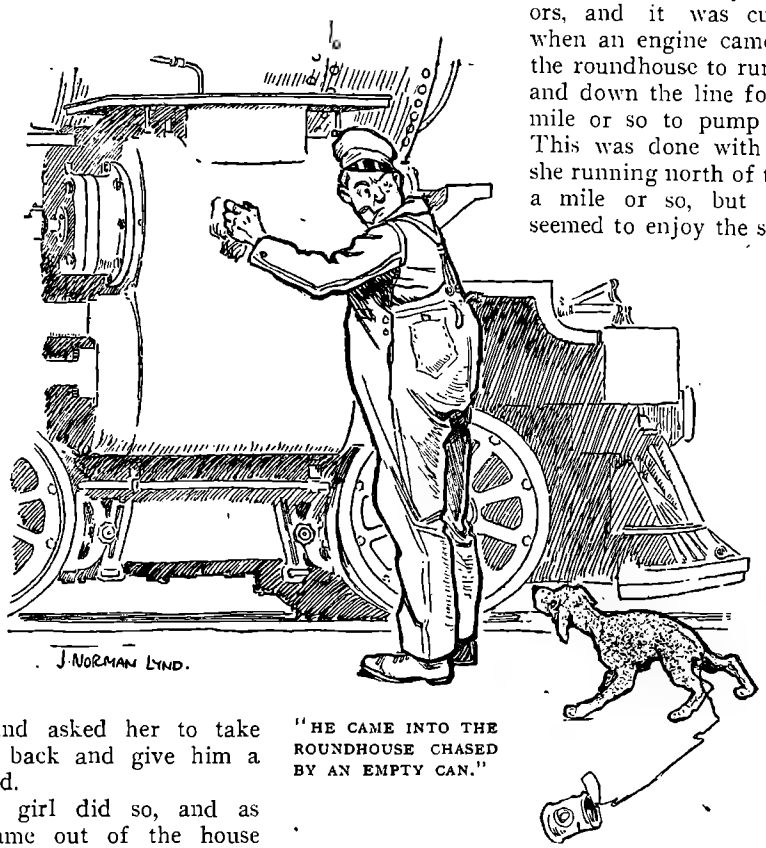
"'Poor devil. You are in hard lines, ain't you?'

"The dog looked at him piteously.

"He patted the dog's head and then, taking his knife, cut the cord that attached the can to the stub of a tail, which the dog kept thumping on the floor.

"It was about noon and Jerry started for his boarding-house. As he was entering the dining-room he met the girl who had taken Biddy's place in the house, and asked her to take the dog back and give him a good feed.

"The girl did so, and as Jerry came out of the house after dinner the yellow dog was waiting for him beside the door. Jerry went on to the roundhouse, and, followed by the dog, climbed into the cab, looked at his fire, and got ready for his run to St. Louis.



"HE CAME INTO THE ROUNDHOUSE CHASED BY AN EMPTY CAN."

Couldn't Feeze the Dog.

"The dog sat on the floor for awhile, but receiving no further attention from Jerry, he leaped up into the gangway and up on to the fireman's seat. Jerry thought that when the engine began to move that he would get frightened and leap off. But he was not that kind of a dog.

"The hostler climbed on the engine, and took her out to the turntable, turned her and ran her out to the coal-chute track where she was coaled up, but the dog seemed to be fully satisfied with his surroundings.

"The leaving time of No. 2 was 1.45 P.M. This was before the day of injectors, and it was customary when an engine came out of the roundhouse to run her up and down the line for half a mile or so to pump her up. This was done with the 30, she running north of the town a mile or so, but the dog seemed to enjoy the situation.

When Jerry backed the engine down to the depot, just as the 36 had pulled on to the siding, Dennis called:

"'Jerry, don't name the dog Donegal.'

"'You can bet your sweet life I won't. He's too yellow.'

"Then Harry McQuaide, the engineer, swung into the gangway, and the first thing that he spied was the yellow dog.

"'Hello, Jerry,' he said, 'where did you get the pup?'

"'Huh. I didn't get the purp. He got me.'

"Then he told Harry about the tin

can episode and how the brute seemed determined to keep close to him. Harry stepped across and patted the dog on the head.

"'All right, Jerry. We'll keep him and call him Dick. He is the 30's mascot and we can't afford to lose him.'

A Canine Passenger.

"With some waste they fixed up a bed for him on the running-board between the fireman's locker and the door of the cab, and Dick fell into it as snugly as though he had never been anywhere else.

"All the way to St. Louis that dog sat upon his bunch of waste and kept his eyes on the track ahead. Once when a steer got on the track and Harry whistled he became excited and barked furiously until the steer left the roadbed. When they passed it Dick did not turn his head. He seemed to think that by his barking he had driven the steer out of the way, and that what happened to the bovine after that was no concern of his.

"When the train stopped at the St. Louis depot and the backup pilot came on to take the train back to Carondelet, that dog still kept his place, and when the engine was set in the house and her fire was drawn, he condescended to get down. Jerry bought him some bones and scraps of meat and he remained in the house. He would not go far from the engine, and when she was fired up and backed No. 1 up to the Plum Street depot in St. Louis, Dick was in his place on the running-board.

"It was not long until 30's mascot was known all over the division, and when Jerry and Harry were both away from the engine the hostler was the only person that he would permit to come aboard. When the engine was in the house he apparently considered that his responsibility was ended.

"The boys all petted him and endeavored to make friends with him, but while he received all their overtures in a condescending sort of way, none of them made any impression. His love and loyalty were due to Jerry and Harry in the order named, and to no others.

"Dick had been banging over the division for about six months, and his yellow muzzle in the cab-window on the fireman's side had come to be as much a fixture as the cab itself. He never by any chance climbed up on the right side, and though Harry coaxed him over once or twice he seemed to know, by instinct, as it were, that in his place on the left side he was in no one's way.

"'The 30 was coming south one day on No. 1, and just as they pulled out of Bismarck the enginemen noticed that Dick was getting uneasy, and when they swung into the long stretch alongside the St. Francis River he began to bark furiously.

"He leaped from his seat to the deck and seized Harry's trouser-leg, endeavoring to pull him away.

"Harry shook him loose but it did no good. He pulled again. Again he was shaken loose when he leaped to his place on the running-board and barked violently. He jumped to the deck again, and again seized Harry's trouser-leg, pulling with all his might to get him away from the right side.

"'What's the matter with the purp?' Harry asked of Jerry.

"'Don't know, unless he wants you to stop.'

"'Well, I'm going to see if there is anything the matter with his bed,' and he crossed over to the fireman's side, while Dick leaped back to his place on the running-board and twisted himself into all sorts of shapes in an effort to show his pleasure at getting Harry over to his side of the engine.

"Just as McQuaide leaned forward to examine the bunch of waste that was Dick's bed, the right side rod snapped, and the end, whirling around like an immense flail, stripped the right side of the engine completely, ripping away the side of the cab and the running-board, from the quadrant outward.

"With the fragment of steel thrashing alongside at each turn of the driver, Harry finally managed to reach over and shut her off. He then got down and disconnected her, going into Fredericktown working his left side only.

"If Dick had not succeeded in enticing Harry away from the right side, the probability is that he would have been killed. Now the question is: Did that yellow pup know that side rod was going to snap?

"After this episode Dick owned the whole road, from St. Louis to Belmont. He grew fat and lazy, but he never missed a trip that the 30 made, and when she went into the backshop Dick took his layoff.

"None of the other runners could coax him on to their engines. He was absolutely and unqualifiedly loyal to the 30 and her crew, and especially to Jerry. It soon got so that when you would see Dick you could be sure that Jerry was near, and if you saw Jerry it was a safe bet that Dick was not far away. Dick ran on the 30 for a long time until he finally went the way that all good doggies go.

"Well, Marsh, it's up to you now. It's your turn to spin a yarn."

"All right, boys," said Marsh. "Well, as you are telling dog and goat stories, I will have to go back to the seventies, when I was firing the old 112 on the Illinois Central. Bob McQuaide was my engineer, a brother to Harry that you spoke of on the Iron Mountain, and when I passed and was set up, Bob went to the Iron Mountain, the brothers desiring to have a run on the same road. Bob was as cool and nervy a runner as you ever saw. He had served in the Union army during the war, and had frequently been employed as a runner when it was necessary for the army to handle trains. He was not a bit superstitious.

"Our run was from Centralia to Cairo, and at that time the two best towns between the points named were DuQuoin and Carbondale, and I suppose are so yet. At DuQuoin was the junction with the St. Louis, Alton and Terre Haute, which, in connection with the Illinois Central, formed the Cairo Short Line from St. Louis to Cairo.

"The agent at DuQuoin had a black tom cat. He was undoubtedly the largest tame cat that I have ever seen. There was not a white hair on him.

"Well, that cat took a fancy to the old 112 for some reason, and when we would pull in he would spring into the gangway and up on the fireman's seat, where he would curl up until we got to Carbondale. Then he would spring to the ground and disappear until we came in on the up trip, when he would come aboard and ride back to DuQuoin.

"SAT UP ON MY LOCKER AND MEOWED THREE OR FOUR TIMES."

"At that time we were pulling way freight, and had a twenty-four hour lay over at Centralia. That cat never would ride on another engine. One day the 112 had been sent into the shop for light repairs, and engine 122, off the north end, took her run. The only mistake that cat ever made was on this trip. When 122 stopped at the depot the cat sprang aboard as usual, but he went on out on the other side.

"The boys tried to coax him on to the other engines, but they could never

succeed: 112 was the only engine in his opinion. He never mistook another for her, except in that one instance. Change of the runs made no difference. Night or day, fast, through, or way freight, it was all the same to Tommy as long as 112 was pulling it.

"One day we pulled into DuQuoin, southbound, about noon. Tommy was on time as usual and sprang aboard. He sat up on my locker for a moment and meowed three or four times. Then he leaped to the ground and disappeared.

"'What ails the cat?' said Bob.

"'Hanged if I know. Possibly he remembered that he had an engagement with Maria, and tried to excuse himself.' I answered.

"Just as we pulled out Tommy was sitting on his hunkers on the platform and he fairly squalled as we passed him.

"'There's something wrong,' said Bob 'and that cat knows it. He tried to tell us plain as any one could.'

"'Oh, nonsense,' I answered.

"'All the same, keep your eyes peeled.'

"For some reason, which I cannot explain to this day, I could not shake off the impression that something was wrong with the Big Muddy bridge, four miles north of Carbondale, but I did not mention it to Bob. As we pulled out of Elkdale, Bob said:

"'Walt, I am going to stop at the Big Muddy. There's something wrong with the bridge.'

"'Do you know that I have had the same feeling ever since we left DuQuoin, and I cannot give any reason for feeling so,' I replied.

"'We'll stop all the same,' he said.

"We ran to within a hundred feet of the bridge and stopped. We both climbed down and went ahead. The spring floods had piled a lot of drift against the bridge, and the water, piling up against this dam, had softened the earth and worked its way through the bank just above the north abutment, cutting the back filling out from behind the masonry and leaving an ugly hole across which the track remained suspended.

"There being no joints above the break, and the rails stretching across, the ties held up to the rails by the spikes, leaving the track apparently all right as seen from above. If we had not stopped and gone ahead we would never have discovered the washout. We would have piled all that train into the hole right on top of that engine.

"We backed up to Elkdale, reported the washout, and there we lay until the track was cribbed up so we could cross.

"Tommy resumed his trips after that, and he kept them up for some time, when he finally failed to show up, and we suppose that he was killed. All the same, 112 was his engine, and none of the boys could get him onto another, even by picking him up bodily and carrying him aboard, for he would spit and scratch, and the moment that he was released would leap to the ground as though the engine burned his feet.

"At any rate, the question before the court is:

"'What did that cat know? and if he knew about the Big Muddy Bridge, how did he know it?'"

GOVERNMENT MEALS, 75 CENTS.

THE Intercolonial Railway of Canada, presenting its claims to public patronage, says that "As a government road, it is owned by the people, and in the operating of the line this principle is ever kept in view, so that the best available service will be given." It operates its own sleeping and dining cars, and serves *table d'hôte* meals—all at seventy-five cents—which are fully up to the best furnished by railroads in the United States.—*Passenger and Agents' Journal.*

It's harder work to pull up a steep grade than to drift down one, but it's safer so long as you keep going forward.

—The Tallow Pot's Diary.

FOR THIS AND FOR OTHER THINGS AS KINDLY, THEY HONORED HIM.

NAILING NINETY-FOUR.

BY ROBERT FULKERSON HOFFMAN.

Something Sinister Creeps Into the Life of High Haven, and the Back-Shop Takes Action.

HIGH HAVEN had but one lynching. And as lynchings go that was not a complete success.

"There's a chink open somewheres along the ground-line of our cabin, boys," said stocky Jim Endy, elevating himself to a seat on a vise-bench between the engine-laden pits of High Haven shops.

"That's it," said old Tom Waring with an anxious note reaching almost to a quaver in his voice. "There's a slat offen our coop and something's crope in!"

The little group that stood about in the few remaining minutes of that noon hour, in turn expressed this idea variously. That was the first angry swirl of talk that came eddying to the surface from the deeply disturbed undercurrent of feeling which was surging in the shops.

They were good shops and very well-manned. For many years, they had stood in all the dignity of a trusted sentinel as the railroad's last mechanical outpost in the industrial war against the desert and the mountains.

A proud little community, whose pride gave no offense, had grown up around the shops. It had the just pride of attainment in the face of very great odds, having, normally, a peace and contentment keyed high with the tang of the clear upper air.

True, it had its little lines of social demarcation and, occasionally, some small dissension. For example: Mrs. Mahalie, wife of Jim Mahalie, who ran the limited turn and turn about with Nick Botts, might not speak to Mrs. Botts for several days, while the acrimonious discussion was on as to who "burned up the driving-boxes" on engine 1003.

But such things were sporadic. They ran their short course and left no permanent hurt. The little ripples of disturbed feelings subsided in due time, and High Haven resumed its wonted pride of calm.

The men tactfully calmed the teapot tempests which, from time to time, loomed large upon the women's horizon

—and quarreled sociably over their own small differences.

This, it will be seen, was all quite as it should be and, on the whole, High Haven had made its impress deeply upon the road's affairs. Its good name had gone afar, even, in the person of Tom Waring's stripling son, it had substantially reached the general manager's office. The young man, as file clerk, was making good in Chicago, and High Haven listened with shining eyes when old Tom sometimes unbent to speak of the boy's little trials and tribulations and successes.

Yes, High Haven had been both proud and happy. But, now, this stealthy trouble—something which it did not understand—was creeping upon the little town.

One by one, in quick succession, the older men were being weeded out of the shops and made derelicts. They lined up along the picket-fence at the railroad station, breaking their hearts while they tried bravely to smile when the limited whisked in and out again behind engines which their hands had lovingly built and petted to perfection.

One by one, the honest but sometimes outspoken younger men were being turned adrift and disappearing into the world of work beyond the mountain, while strange faces of still younger men were taking their places in the shops.

When pressed for a reason for these things, the master mechanic looked troubled and walked away with his chin upon his breast unanswering, for the first time, in High Haven's knowledge of him.

The root of the trouble grew far away —as far as Chicago, even—and High Haven was tasting the first bitter fruit of that growth.

It began with a yellow-looking circular letter that came in the general manager's daily grist of mail. The letterhead seemed harmless enough. From "The Industrial Improvement Corporation," it professed to come.

"Plans That Place Progressive People," its further headlines set forth in conspicuous type above a detailed offer to give an exact daily report upon the "individuality, personal and general characteristics, working efficiency, and loyalty of any working force on earth, weeding out the undesirable, taking up the lost motion, and turning into the treasury more actual dollars per man employed than ever has been got out of your men before.

"No pay unless we succeed, and no dead timber left when we get through with your shops. We aim to please." This short symposium of the survival of the fittest and the uncaught naively concluded: "Our operatives are never caught. Absolute secrecy guaranteed!"

That letter bore, also, a few penciled words from one who was not much given to debate in the higher management of the road. The general manager, therefore, called in the general superintendent of motive power.

"I detest it!" said the general manager, quite frankly. "I despise the whole spy system as thoroughly as I did when I was a mechanic at the bench, and I hope that this will not be for long.

"But we've got to try it before we can say absolutely that it is both ultimately worthless and immediately disturbing, as I believe it to be.

"Put it on and send me the original reports as fast as you get them."

Therefore, there was a spotter, or spotters, in High Haven shops. Therefore, High Haven was much disturbed in that memorable month of its trial, and Jim Endy, sturdy pit-man, was the first to give concrete expression to the thought that was shaping itself slowly in the shop.

After that, the idea went murmuring down the pit-line amid the ringing rataplan of hand-hammers clinking out the merry ring of smitten steel. Day by day, it was discussed and punctuated by the boom of sledges and the sharp spang of riveting hammers upon giant shells of steel standing big, solemn and forsaken-looking in the boiler-shop.

The anvils rang it subtly in the blacksmith-shop, and men there read the menace of it in the lurid flames that flared and leaped above the forges.

The buzz-saws of the cab-shop hummed with it. The great forest of running belts on the machine side, just over the straight track from the pit side of the back-shop, whirled it into the surcharged air and wafted it to every guardian of lathe and planer and other busy, moving device that worked for the good name of High Haven and the good of the service.

Yes, that much was established beyond reasonable doubt. There was a rat in the meal-box; a beetle on the limb; a lizard at the bee-hive; anything you like as parallel, but somebody was secretly accusing. Somebody was listening to the accuser while the defendant was unheard. Somebody was delivering judgment against which there was no effective appeal.

Who?

Men searched each other's faces furtively to no avail. The scorer-beetle, cutting his fatal circle around the young hickory limb, is so like the color of the thing which it destroys that a passing look will not betray its presence. Yet, the limb quickly dies.

The lurking lizard is so like the sun-washed rock upon which it glides that, often, it is only the quick darting of its tongue that may arrest the eye. But, if by chance one should step upon the insidious thing—that would be very different!

So far, no one had chanced to step upon the lizard. The process of elimination had gone on at the shops until Tom Waring's was one of the few gray heads that remained. The "mavericks," as Jim Endy called them—the newer men who had not been long enough in the shop to properly acquire and assimilate the "brand" of High Haven—had become a considerable factor in the shop's total, and Jim, with some lingering instincts of his earlier days as a cattleman upon the up-lands, searched their faces unflaggingly for some sign or ear-mark which might point the way to their pedigree or possible ownership.

But, he found nothing worth while. Men in uniform, however modest, look quite a deal alike in general. Men's faces, like printer's type, sometimes read quite the reverse of what they are meant to finally convey.

Perhaps the situation would never have drawn down to an actual focus upon the secret offender if the postmaster's wife had not been hard put to it for a bit of morning gossip.

ONE BY ONE THE OLDER MEN WERE BEING WEEDED OUT OF THE SHOPS.

IT FLEW SWIFTLY PAST HIS CLUTCHING FINGERS.

"How *is* Mrs. Waring?" she asked a morning caller at the delivery window.

"Um-huh. Too bad she don't get better—Yes, I help at the window here sometimes, but not much—That is a bright boy of Tom Waring's! There is hardly a three days that goes by but that he sends a letter from Chicago—Um-huh. Yes, he's in the general manager's office, you know, and doing well, they say—Yes. Well, good morning!"

That was all. But, one of the pathetic old graybeards who had but recently been relegated to the picket-fence brigade was there with his aching heart, waiting for the letter that had not come in answer to his appeal to headquarters for a hearing, but which he had not yet the courage to believe would never come.

He heard that morning chat and, disappointed as usual, went away pondering it. Every three days, eh, and doing well. So Tom was doing well. He had his job, undisturbed.

Why should he have? His age didn't save him. What saved him?

So he mulled it over until his quick suspicion became a conviction. The idea ran the length of the picket-fence brigade in the next few days. It crossed the tracks and made its rapid way into the shops.

Men began to look askance at old Tom Waring. Sometimes he suddenly found himself standing alone where, a moment before, a group of his fellows had stood earnestly talking while he approached. A fierce and resentful spirit was being fomented against him, but, as yet, there was nothing definite upon which to center it in the way of accusation.

If he noticed these things, Waring gave no sign. Perhaps he unconsciously withdrew a little closer into himself, but under normal conditions this would have been easily accounted for. He was at all times a reticent sort; and, furthermore, all who were a part of the old life of High Haven knew that, save for his occasional unbending to report the progress of his absent son, his thought was chiefly with the patient, white-faced little wife at home.

They knew that each morning, time out of mind, he had propped the frail little body upon the pillows in its bed, and with his own roughened but gentle hands bathed the half-transparent hands and face of his wife, brushed out her soft hair and made her as comfortable as might be before leaving her to the care of a domestic and taking his way to his work on the pits.

For this and for other things as kindly, they had honored him as few men were honored in High Haven's quiet way. But, if it is found that a man is a traitor, in any walk of life, all other facts at once shrink to minor significance. A storm was evidently gathering around Tom Waring. A seemingly little thing precipitated it.

On one side of the pit upon which engine 1003 was receiving repairs, stood the vise-bench at which Waring worked. Beside him worked Jim Endy, fitting up shoes and wedges for that side of the

engine. On the opposite side of the pit Jake Halprecht manned the bench, fitting similar parts for the corresponding side of 1003.

Jake, peering malevolently through the frames under the engine in a furtive study of Tom Waring as he worked, allowed one of the heavy dead shoes which he was trying against a pedestal-jaw, to slip from his grasp. The sharp-cornered, heavy casting gritted across the pedestal-binder and darted into the pit with no word of warning to announce its coming.

It struck a glancing blow behind the ear of one of Jim Endy's "maverick" machinists who was stooping there, and slid to rest in the brick-paved bottom of the pit. The man dropped without a sound, and lay there with the blood welling from a three-inch gash which showed the white gleam of the bone before the red flood poured forth and drenched his hidden face.

They lifted him out and laid him on Tom Waring's bench, and it was Waring's skilful hands that stanched the gaping wound, and Waring who best enacted the part of the good Samaritan until the man could be taken away for further attention.

In a week he was back — with bandaged head—at the pit. Senseless at the time of the accident, he did not know whose hands had given him first aid. Possibly he was so constituted that he did not especially care. In any event, within two days of his return the disturbing rumors that pointed toward Tom Waring were renewed with a venom that passed all that had previously been shown.

Somebody had heard that Waring's boy had written from Chicago that Jim Endy was likely to lose out soon. Nobody had told Tom Waring of this, but everybody else had heard it within those pregnant two days.

Jim Endy did lose out. He was discharged within twenty-four hours from the time the rumor became current. No reason given, and Jim was too proud to ask for any. He joined the picket-fence brigade, and waited.

That evening, after the shop-whistle had blown, there was an unusual hubbub and crowding in and about the shop wash-room. Men who, ordinarily, did not think of stopping there to free hands and faces of the heavier grime before going home for the day, crowded into the room and overflowed noisily into the shop.

Above the growing clamor, in which Tom Waring's name was being bandied about very recklessly, there arose, at length, one voice that spoke clearly the dominant note:

"This thing's gone far enough! When he comes down-town, to-night, he gets the question, square, and he's got to give the answer!"

While this voice of menace was rising in the shops the summer sun was bestowing its evening benediction upon the little red telegraph-office at Bright Angel, a half-hour's ride eastward over the mountain.

There and then, big Jim Mahalie, with square-set jaw and smiling eyes, was heading the west-bound limited into the siding for water and to let the general manager's one-car special go by on its way eastward.

He saw it coming far away over the buttes, and, while the water was being rushed into the tender of his own engine, he made a quick, sure inspection below, and stood waiting to see the special roll rapidly past.

In the observation end of the special the simple evening meal was being eaten by the general manager and his secretary. The slight repast had reached that stage of its serving which would require no further attendance from the cook-factotum-porter, so that able and zealous servitor seized the opportunity to set in order the forward compartment of the car, which served as the secretary's office.

Dusting, adjusting, and guardedly rearranging the mass of papers upon the secretary's desk, he made the well-meaning mistake of raising a window-sash close beside the desk just when one of the swift little catspaws which frequently dab down from the upper air on the Great Divide added its swirl to the commotion set up by the flying train.

Instantly, one flattened sheaf of papers, from which he had lifted the paper-weight, rose with a rustling flutter. It flew swiftly past his clutching fingers and fetched up, tossing and tumbling, between the driving-wheels of Jim Mahalie's engine as the special swept past.

Jim picked up the papers, and stood looking expectantly at the receding train. He waited for the stop signal from the special's engine-whistle to indicate that the loss was reported, and that they would stop and pick up the papers.

No signal sounded. The train rapidly faded into a lessening speck in the distance, and Jim knew that the porter, after one frightened glance from the open window, had decided to defer the evil hour of reckoning—take a continuance, as it were, and hope for the best.

Thus suddenly become the custodian of this waif of correspondence, Jim glanced with natural interest at the topmost sheet. His face paled the merest shade. Then it reddened with a surge of anger.

He looked hastily up to the fireman perched on the waterspout, and noted with relief that he was watching anxiously the flow of water into the tender.

Climbing hastily back to his seat in the cab, Mahalie's eyes burned through the contents of the papers, swiftly, surely as he was wont to read a sheaf of tissue orders. When the waterspout clanked up against the roadside tank, he knew those writings as he would have known a handful of orders, at one sure reading. He was ready to "run on them."

Tom Waring came down-town that evening in High Haven. He came just when the dusk was growing deep and the yellow lights were beginning to show thickly along the main street near the tracks. He came with heavy step and bowed head, as one whose trouble is too deep for speech, yet cries aloud for the friendly company of men.

The streets nearest the tracks were more than usually alive. Men stood in little knots and larger groups, here and there, upon the nearer corners. But Waring did not notice it. He came steadily on across the little plaza which opens upon the tracks beside the station and joined the group strung out along the picket-fence and swelled to a cluster of silent men beneath the lone cottonwood which stands sentinel at the edge of the plaza.

Halting there, he lifted his eyes for a single glance about him. He saw Jake Halprecht, Jim Endy, and others whom he knew, or did not know, in that one haggard glance. Then his eyes fell, and he spoke:

"Boys, my wife—"

"Cheer up!" broke in a voice he did not know. "Never mind your wife, for a little while. There's something else we want to talk about."

Waring straightened at this as if he had been struck. For the first time he took understanding note of his surroundings. He saw a general movement of men from the adjacent streets and corners toward the tree beneath which he stood.

What he did not see, however, was a coil of rope that swung at the hip of one of the approaching throng. Perhaps it was as well for those who stood immediately about him that he did not see that; for, whatever else Tom Waring might prove to be, he had the courage and the sinews of a man.

One comprehensive glance he took, and said:

"Well, talk it, then!"

The response came promptly. The thickening crowd shaped itself automatically into a circle around him.

"Who's the spotter in the shop?" demanded the voice that had admonished him insolently to cheer up.

The booming station-call of Jim Mahalie's engine came rolling down through the dusk as if in unintelligible answer.

"I don't know" replied Waring quietly, as the echoes of the limited's whistle died out upon the mountainside.

"No, you don't!" said the voice derisively. "What's your boy writing about from Chicago?"

"That is none of your business," replied Waring, still quietly.

"You're the spotter!" declared the voice, and the man with white-bandaged head pressed forward from his place beside Jake Halprecht and thrust out his jaw aggressively.

"You lie!" shouted Waring as he leaped toward the man.

At the word, the crowd split and upheaved into a dozen fighting centers, in which battled those who believed in Tom Waring and those who believed that he was false.

The bandaged head was shuffled beyond Waring's reach, and many hands were clutching, tearing, pounding at

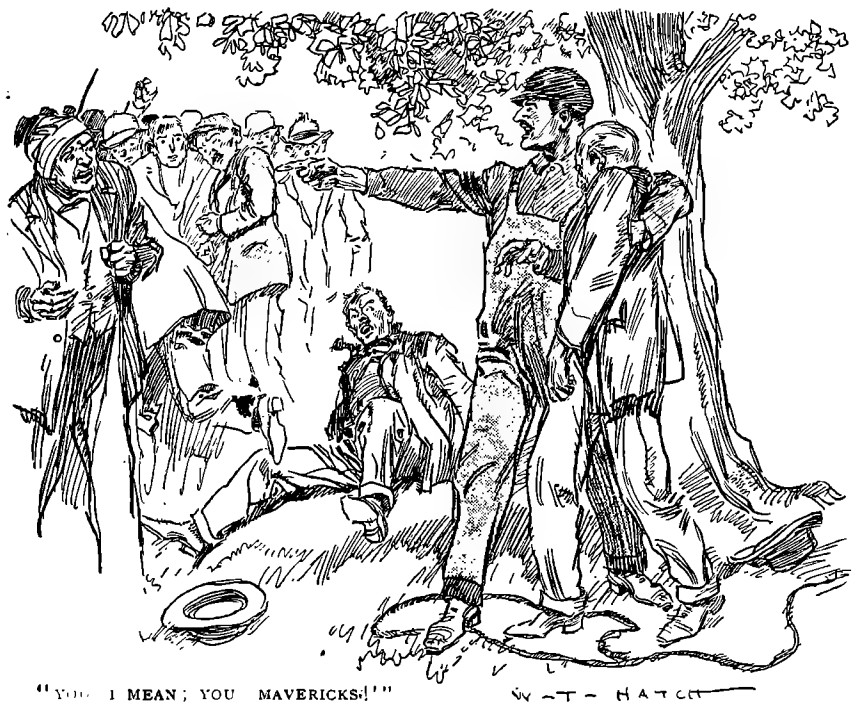
Waring's body in return for the storm of blows which he was dealing fiercely upon them at every side.

Upon this shouting, battling throng Jim Mahalie looked out in astonishment as his engine glided to a stop at the edge of the plaza. His quick wits guessed but once, and guessed right. He leaped from the engine-cab, and, with brawny arms toughened by years of battling with murderous reverse-levers, began beating his way through the riotous mob toward Waring.

He was strong. He was fiercely angry. But they were many, and he was but one. With his eyes fixed on Tom Waring, he saw the stealthy coil of rope hurtle through the air and fasten its running noose at Tom's throat.

He saw the loose end go writhing upward and over a limb of the cottonwood, and saw the line run taut. Again, he saw Tom's battling suddenly cease while his hands clutched futilely at the strangling loop around his neck.

Then he had no clear recollection of what he saw until he was done trampling over the bodies of men who fell before his last mad onslaught, and he was tearing the rope down, hand over hand, from the limb, ripping it loose from Waring's neck, and casting it away over the heads of the men who remained upright around him.



"YOU, I MEAN; YOU MAVERICKS!'" W. T. HALL

Half senseless, he supported Waring, while he snarled forth the bitterest words of denunciation that ever rang across the plaza of High Haven:

"Stand away! You cursed camp-followers! You dogs! You coyotes! You, I mean; you 'mavericks'!

"High Haven couldn't breed a play of its own as low as this!

"Sit down, Tom!"

He let Waring down gently to a place at the foot of the tree, and made an effort to fan him with his oil-glazed cap.

"Jim," said Waring faintly. Then his voice took on greater power, and he added the one magic word that penetrated to the outer rim of the now silent crowd, and went farther toward healing the breach in High Haven affairs than any other that he might have uttered:

"Boys, my wife—my wife died a few minutes ago."

"Oh, my goodness!" moaned a deep voice from the midst of the awe-struck throng.

"You know," continued Waring's voice, "she's been long sick, but the end came that suddenlike that it fair struck me dumb. I guess I sort of wandered down here, looking for somebody to stand by me for a mite until I can get used to the idea.

"I want to go home now," he concluded, struggling to regain his feet.

"Wait, Tom," said Jim Mahalie. "Brace up for a while. We ought to know about this — and then I'm going with you."

He thrust his hand deep within his blouse and brought forth the vagrant sheaf of papers from Bright Angel siding.

"Hold your lamp here a minute, Perky, will you?" he called to the conductor of the limited.

The gay little green-and-white lantern bobbed its way through the fringe of the crowd, and by its light Mahalie read aloud a line from one of the papers which he was rapidly shifting with skilful fingers.

At the first word the man of the bandaged head began edging toward the rim of the crowd. He was stooping and pressing for a final exit, when Jake Halprecht's big hand fell heavily upon his shoulder.

"Wait!" commanded Jake. "Nobody goes now!"

It was all there. Word after word. Line after line. Page after page. Each of Jim Mahalie's brief and pointed extracts held something which somebody recognized and instantly connected with something else—all having a common trend; all leading to one inevitable deduction.

Every pitiful little human weakness or defection that might not "make for success" in the shop's daily doings was particularly set forth there by day and date and hour.

Poor, well-meaning, average human kind was laid bare in that merciless epitome of the policy of the survival of the fittest. They were able documents of their kind.

It was short and cold and very calm, that reading of Mahalie's; and when he quickly reached and read the topmost writing, the effect of that brief communication was electric:

> Worked with Tom Waring, Jim Endy, and Jake Halprecht to-day on engine 1003. Halprecht dropped a deadshoe on me. Knocked me clean out. Bad cut back of ear. Have to lay off rest of this week.
>
> Don't know whether done on purpose, but they are getting hot and dangerous. Guess I can bluff them some more. Jim Endy ought to be fired quick, and next Tom Waring. Started spotter talk. Fire Halprecht. He's a dub and too old. 94.

"That is all," said Jim Mahalie. "Can any of you enthusiastic gentlemen nail this patriot who signs '94'?"

The man with the bandaged head suddenly broke loose from the slackened grasp of Halprecht and darted through the edge of the crowd. He sprang across the platform of one of the cars in the limited, with Jake Halprecht and Jim Endy close behind.

Across the yard, through the roundhouse, and into the black depths of the boiler-shop the chase led, and it ended beside a rivet-heating forge upon which the fire still smoldered.

They did not strike him. Nobody deigned to kick him. They stared at him in a species of loathing wonder until Jim Endy gritted through his clenched teeth:

"You '*maverick*'!"

That word settled the fate of the fugitive. He did not bear the brand of High Haven. He must bear a brand of his own. It was quickly done.

Jim Endy's hand had lost none of its old-time skill with the "running-iron." The fire on the forge flared up for a little time and then died down again.

When "94" went over the mountain that night, he was neither bruised nor beaten—but his number was aching and burning upon his back.

There is now no line of discredited veterans, smiling with breaking hearts, along the fence-line at High Haven. Time and experience have evolved a more acceptable form of retirement. Just how much of this is due to the manner of the return of the general manager's papers, it might be difficult to say.

HE MUST BEAR A BRAND OF HIS OWN.

However, he received them promptly through the proper channel, with full information. He, personally, took them to the general superintendent of motive-power, and, after he had closed the door against all intrusion, banged them upon the desk with the terse command:

"Destroy them! Yourself! You know how it finished at High Haven? Think of it! And with the limited standing by!"

He paused—and continued:

"Destroy them! Put every one of those men back as soon as you can without making a parade of it!"

He turned about, and had reached the door, when he said with an odd smile:

"It is too good to keep—or too confounded bad. I'll have to tell you!

"Why this diabolical outfit turned in a report against *you!*"

"Yes. I know that," was the reply.

"But they put in a report on *me!*" insisted the general manager. "And just yesterday we discovered that they were working up a case against the board of directors, and had designs upon the chairman of the board—who employed them! A week more of it, and they would have owned the road!

"Don't forget to destroy them!" he said, with a backward nod toward the papers as he passed out.

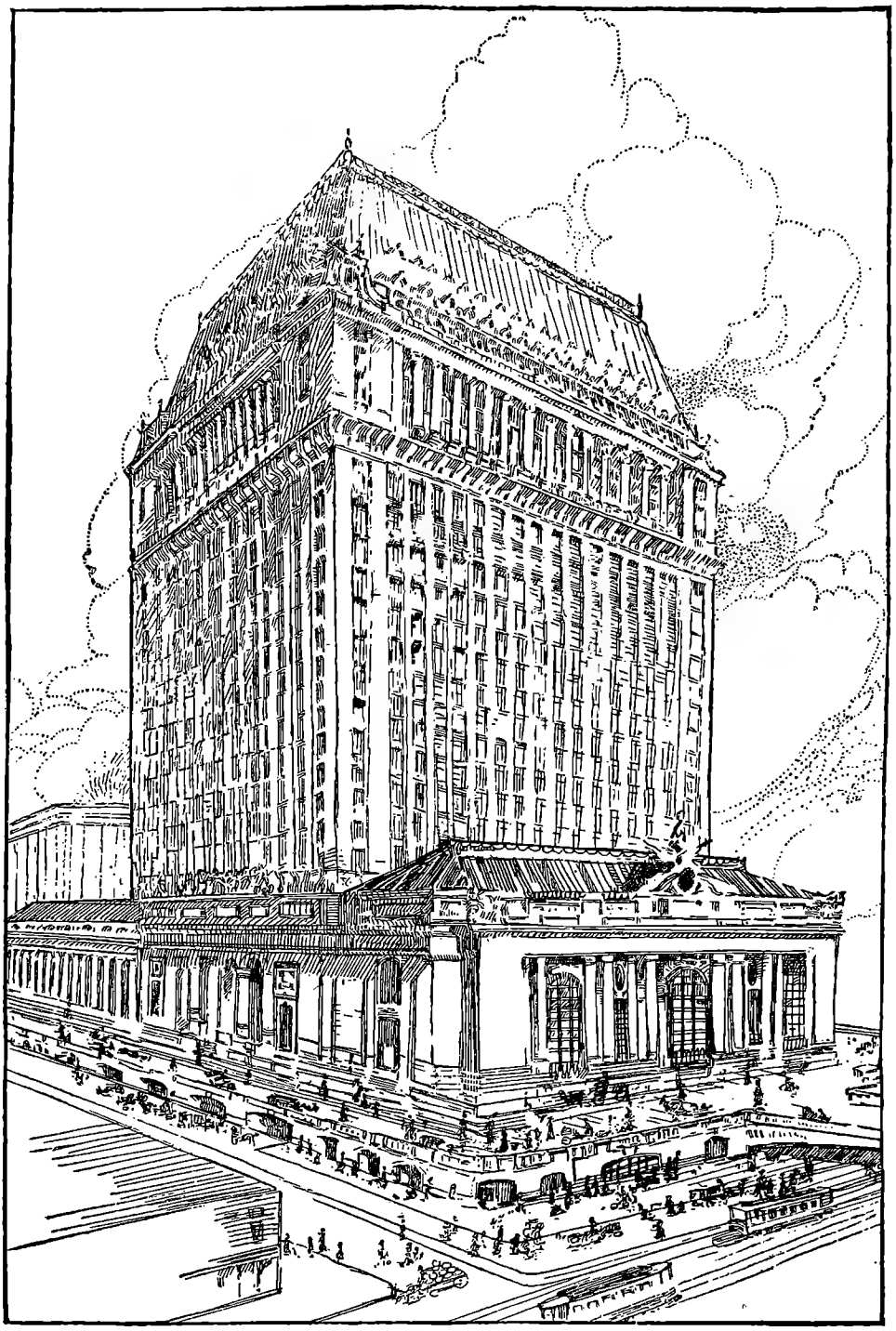
They were destroyed.

AN ENGINEER RHYMESTER.

IN spite of the bad weather that prevailed over most of the country during the last four months, passenger-trains have been run with wonderful punctuality on most of the lines. One night a freight-train on the Milwaukee road was stalled and delayed an important passenger-train. An irate super wired the engineer the well-known ominous phrase, "What was the cause of your delaying No. 8?" The engineer is a friend of Shandy Maguire and a rival of the engineer-poet. He answered:

"The wind was high, the steam was low;
The train was heavy and hard to tow;
The coal was slack and full of slate—
That's why we held up Number 8."

Railway and Locomotive Engineering.



Drawn from the Architects' Designs.

THE NEW TERMINAL BUILDING FOR THE NEW YORK CENTRAL LINES IN NEW YORK CITY. THIS MAGNIFICENT STRUCTURE IS BEING ERECTED ON THE SITE OF THE OLD TERMINAL WITHOUT THE SLIGHTEST INTERRUPTION TO THE TRAIN SCHEDULES.

The New Home of the New York Central.

BY STEPHEN ANGUS COX.

THE New York Central Railroad is rapidly pushing to completion its new terminal on Forty-Second Street, New York City. Its officials are meeting the cry for larger and better transportation facilities in the metropolis with a terminal that will be the acme of constructive skill. Millions of dollars are being spent for the safety, comfort, and convenience of its patrons; and, with an ingenuity that borders on wonderment, a new depot is being constructed with the razing of the old one still going on, while the terminal trackage is being doubled without a single interference to the regular passenger-train schedules. It is a marvel of engineering skill.

In the Heart of New York City a Gigantic Terminal Is Being Constructed While the Old One Is Being Demolished, and the Schedules of a Great System Remain Unchanged.

IN the heart of New York, the great modern, matter-of-fact city, a miracle is being wrought. One of the greatest engineering feats of railroad history is being accomplished. The Grand Central Station, one of the busiest of the world's termini, is being razed, its tracks torn up, its yards quarried, its switches and signals changed and rechanged every day.

A mighty new terminal being constructed simultaneously with the destruction of the old one, and not a train of the 700 that run in and out of it daily is being delayed.

It is a work such as giants might be expected to achieve, an immense wonder-inspiring section of the great future brought into use half a century ahead of time.

The New York Central Railroad Company for thirty-nine years has been the only railroad company with a passenger station on Manhattan Island. All other lines, from South, West, and North came to an end—made a disappointing finish, so to speak—in Jersey City or Hoboken, and the tired passengers must needs tumble out of the cars, go swarming down the narrow, sloping chutes and aboard the ferry-boats, there to dwell a seemingly interminable period, while the boat was backing and filling, ducking and dodging the innumerable river-craft, and paying a course for a slip somewhere along the river-front on the New York side.

Originally built in 1871, the station was enlarged in 1898 and 1900; but the constantly increasing traffic made imperative a much larger station, and the New York Central Railroad Company, realizing that in another decade New York will be a city of six or eight millions, with three or four times the present traffic, decided to build for the future.

A Daring Undertaking.

The enlarging of a terminal in the heart of New York City is a task only

to be undertaken by the most daring. Where acres of property, perhaps the most valuable in the world, have to be swept away, the cost of yard tracks comes mighty high.

The Pennsylvania Railroad Company gave an illustration of what can be done in this direction with unlimited resources. The New York Central is giving an illustration of what can be done with unlimited resources and engineering genius. They bought nearly twenty-two acres of real estate, and ruthlessly swept down millions of dollars' worth of residences and stores. But in yard trackage twenty-two acres is not an enormous area, and more is needed if the company would not again be face to face with the same problem in a very short time.

There must be an end of the buying up of the city, and especially when the purchase prices run to fabulous sums per front foot. They already had twenty-three acres in the old terminal, and this added to the twenty-two made what would strike one as a good-sized yard.

It did not strike the responsible officials of the New York Central that way, so they set about to see how they could double it without investing in more real estate.

Simplest thing in the world, of course, to excavate and make two levels. Very simple, indeed, on paper. However, it is for the directors to command and the engineers to obey.

If the directors say that all trains must be drawn into New York City by electric-power, it must be done. If the directors say that trains must run into a terminal of two, or even more, levels, that also must be done. In engineering there are apparently no impossibilities.

The First Work.

The first work was a work of destruction. Commuters coming in every morning saw the outline of the yards changing day by day with the rapidity of magic. Buildings that had been landmarks to them for years as they emerged from the Park Avenue tunnel were destroyed overnight.

Over on the East Side the temporary terminal sprang into existence, the lower floor of the Grand Central Palace was commandeered for the purpose, and a splendidly fitted station appeared before the New Yorker had hardly become aware of the fact that changes were being made.

From behind this terminal two levels of track pushed their way out toward the tunnel. They were the beginning of a new order of things.

Gradually they widened, stretching out westward toward the old station, until there were twenty-three tracks on the upper level and nine tracks on the lower level. Then began the work of destruction of the old tracks and yards.

A thousand men, like an angry army of invading insects, began tearing with their seemingly puny strength at what had been the monumental labor of an earlier generation. There was something tragically ruthless in this terrible sacrifice to the god of expansion.

Drilling Into the Earth.

They pounded their whirling steel stings into the earth and tore out her rock-bound heart, but all along the rhythmic pulsing of the drills beat the air like the music of the song of industry. In the weird glow of electric flare-lights they drilled and drilled, and the night, instead of softening the sounds of destruction, made them appear all the more relentlessly eager.

To the watching New Yorkers it seems as if the New York Central had decided to make wreck and chaos of all it could lay its hands on.

It was not until practically a few months ago that to the experienced eye some semblance of order, some idea of design, could be gained from the apparent chaos.

As the tracks from the new portion of the yards reached to the old one, the old terminal began to be destroyed and the old tracks to be torn up.

The tearing down of the station, with its enormous and heavy train-shed and the accommodating of the tremendous crowds is one of the engineering feats of the day. To move the train-shed over the heads of the passengers a most ingenious scheme was evolved.

An enormous movable traveler was built in accordance with the contour of

the train-shed, and mounted on wheels, which ran on rails laid in the middle of the platforms. The train-sheds were removed in sections of twenty and forty feet, the roof covering, which consisted of corrugated iron and glass, being removed to the floor of the traveler.

The trusses, having a span of 200 feet and a height of ninety feet, were cut out in eight sections and lowered onto the traveler-floor by derricks, this work being done in the daytime.

At night two tracks were assigned to the construction department, and the refuse material was placed on cars and sent out on the road. Temporary wooden sheds were built behind the traveler, so as to leave very little uncovered space.

When the traveler reached the fence at the north side of the present concourse, the work became more difficult for the reason that no supports could be placed on the concourse, it being filled with people most of the time; but the difficulty was surmounted, and the roofing and trusses successfully removed.

The base of the trusses extended several feet below the level of the platforms, however, and to prevent the necessity of tearing up a goodly portion of the concourse, an acetylene-oxygen blow-pipe was used, and by means of the flame thus produced the trusses were burned off at the level of the platform.

The Track Arrangement.

Of the forty-two tracks on the upper, or express-train level, twenty-nine will be adjacent to platforms; and of the twenty-five local, or lower-level tracks, seventeen will be adjacent to platforms. Five of the upper-level tracks at the extreme west side will be connected, by means of loops, with yard tracks on the east side, while the majority of the tracks on the suburban level will have loops at the southern end, connecting them with the storage-tracks at the east side of the yard.

Inbound through trains from the neck of this immense bottle will, in the majority of cases, be diverted onto one of the five tracks already mentioned as being connected by loops with the tracks at the east side. After the passengers have alighted the trains will be taken around the loop, and after the baggage-cars have been placed on a track adjacent to a baggage platform, equipped with elevators and conveyors, the rest of the train will be placed on tracks in the storage-yard.

Trains Down an Incline.

Inbound suburban trains will be sent to the suburban level down an incline-track, either at the extreme west side of Park Avenue or on one about the center of the avenue, thence onto a track adjacent to a platform, and in most cases on the west side of the yard.

Here the passengers alight; and if the train is to depart immediately, it is reloaded, sent around the loop, and rises on an incline-track to the main level on the east side of Park Avenue, and thence onto the road.

Trains that are not to go out for a while are placed in the suburban storage-yard. Thus the business of the two yards will be kept separate, and all confusion incident to transferring equipment from one level to the other will be avoided.

As may be supposed, in a yard the size of the Grand Central Terminal, with its sixty-seven tracks, aggregating thirty-two miles, a perfect system of signaling and train control is necessary. Without such a system it would be impossible to get 700 trains through the narrow neck of our hypothetical bottle every twenty-four hours without collisions and wrecks.

One man controls the entire train movement of the Grand Central Terminal. He is stationed at Mott Haven, and is called the chief interlocking director. Between his office and the Grand Central Station are five towers, in which are lever switchboards, it being possible to open or close any switch by pushing a lever, and thus diverting a train onto any track desired.

In each of these towers there is a bay window, and in the window sits the tower-director, who, when he sees a train coming, gives an order to one of the operators, who pushes the proper lever, and the train moves onto the proper track.

The trains on the different divisions are designated by a different letter on all the train-sheets. Trains of the Har-

lem Division are denominated X, those on the New York, New Haven and Hartford Division by Y, and those on the Hudson River Division by Z.

If a train arrives at Mott Haven, and the chief interlocking director wires to the towers that Z-21 has arrived, the directors in the towers know that train No. 21, of the Hudson River Division, is referred to. When the train comes in sight the director gives the order to one of the men, who pushes the proper lever.

This system has been described fully in a previous number of THE RAILROAD MAN'S MAGAZINE, so it is not necessary to more than refer to it here.

The tearing up of the old tracks, the excavating and erection of the tremendous girders which are to form the groundwork and support for the upper level, was more than a problem of tremendous construction — it was also a problem of ingenuity. Every move had to be laid out on paper, and new combinations of signals and switches worked out before a rail could be torn up, or there might have been unending delays.

Never before was work so scientifically ordered and so minutely planned in the order of its execution. Excavating alone was a task so stupendous as to daunt all but the dauntless. Over 1,500,000 cubic yards of earth and rock have been excavated already, and the work is little more than half completed. The rock-drilling varies from five to fifty feet, and already enough rock has been removed to build a pyramid as large as the famous ones of Egypt.

Like a Bottle's Neck.

To get an adequate idea of the difficulties of constructing a tremendously wide terminal station with two levels and with every track in almost constant use, it must be borne in mind that the entire traffic must be poured through the Park Avenue tunnel as through the neck of a bottle.

The ingenuity demanded in laying out these tracks, and in apportioning the trains that run over them, is positively uncanny. Like everything connected with this tremendous undertaking, one has to think of it in superlatives. The trains of practically three railroads empty into and from this enormous bottle. There are the Hudson River and Harlem divisions of the New York Central, and the New York, New Haven and Hartford road.

The Grand Central Station, the crowning glory of this great terminal, will stand on the site of the old building, the demolition of which will begin the first of May. The new station will be 600 feet long, 300 feet wide, and 105 feet high. At the street level it will be 745 feet long, 480 feet wide, and 45 feet deep. The building will be bounded by Depew Place on the east, Forty-Second Street on the south, Vanderbilt Avenue on the west, and Forty-Fifth Street on the north; but the building will be set back from Forty-Second Street and Vanderbilt Avenue about 60 feet, providing a wide plaza on the south and west.

The Station.

The original plans of the station itself have been changed considerably from the first design, and the building, when finished, will present a unique spectacle of a self-supporting terminal.

As may be seen from the architects' drawings, which we reproduce, a sky-scraper building will reach up from the main structure, and the rental from the offices contained in it are expected to practically defray the working cost of the terminal.

The main entrance to the station will be at Forty-Third Street, on the Vanderbilt Avenue side. On descending a short flight of stairs to a level about ten feet below the street, one will find himself on the main concourse, which will be 120 feet wide, 500 feet long, and 100 feet high. The suburban concourse will be the same width, but only 400 feet long.

South of this concourse, and between it and the Forty-Second Street front, will be a large waiting-room, ticket-offices, etc. It will not be necessary for passengers to go through this room in going to and from trains. Around three sides of the concourse, at about the street level, will be a balcony, to which carriage passengers and those entering from the street will have access.

The main concourse will connect only with outbound trains. An arriving con-

course for through trains will be built at the east side of the building, thus avoiding the confusion usually existing where incoming and outgoing passengers commingle on one concourse.

Below the concourse and waiting-room, on a floor immediately between them and the suburban track level, will be a large mezzanine concourse connecting with the Subway, and enabling arriving and departing suburban passengers to go to and from the Subway and suburban track level without having to ascend to the street.

For several years past all the trains entering and departing from the Grand Central Terminal have been hauled by electric locomotives. Consequently the smoke and gas-fumes, so disagreeable to passengers while the train was traversing the tunnel, have disappeared.

In addition, what are known as multiple unit trains are in operation. These cars have a motor, and can be operated as units or any number together.

The use of electricity as a motive power made a great change at the terminal. With steam-locomotives, a high train-shed was necessary to provide ventilation, but with electricity all that is necessary is to provide room with the trains. It was this that made possible the creating of a second level, which could be utilized for the suburban train service.

As the terminal is to be used by the New York, New Haven and Hartford Railroad Company, as well as by the New York Central, the presidents of these two companies are in full control, and they give final decisions on all plans evolved by engineers, architects, etc.; and under them, and having direct charge of the work, is a vice-president of each road, who in turn is assisted by a joint committee of three representatives of each road, these committees making recommendations on all plans submitted by the engineers and architects.

The total amount of steel used in the construction will be 86,000 tons. This would require in the neighborhood of 3,000 cars to haul, and would make a train about twenty-five or thirty miles long.

The capacity of the old terminal was 366 cars; the capacity of the new terminal will be 1,149 cars.

RISKS LIFE TO SAVE CHILD.

Fireman on Pilot Snatches Little One from Death Beneath Rapidly-Moving Engine.

WHILE the engine was going about thirty-five miles an hour and approaching the town of Donahue, Iowa, Fireman Fred Sies, of the Monticello accommodation-train on the Milwaukee, standing on the pilot of the engine, No. 573, grabbed a three-year-old child, playing in the sand in the middle of the track, by the neck and saved its life.

The experience is one which, he states, he does not care to have repeated.

"If any man deserves a Carnegie medal, this fireman certainly does," said Engineer Frank Cowden, of the train after the train had arrived in Davenport.

"We were coming down the track at the rate of about forty miles an hour, and were within a mile and a half of Donahue," he said, "when I saw something ahead of us in the middle of the track.

"I thought it was a dog, but suddenly saw it was a child, as it raised up. The child was playing in the sand, and was stooping over so that it looked like a dog. I immediately shut off the steam and put on the air, and then saw Sies running out on the running-board to the front of the engine.

"When we came to a full stop I hated to go out and look at the spot where we had undoubtedly killed the boy, as I thought sure that he would have been run over, and Sies as well. I never was so surprised as when I saw my fireman step up to the cab holding the child by the neck."

Both fireman and engineer state that the mother of the child, living close by, ran out of the house when she saw the train approaching, but turned in horror and fled back as she evidently did not want to see the child killed.

After the train was stopped and she got her child, her excitement and joy were so great that she could not utter a word.—*The Railway Record.*

THE LURE OF THE RAILS.

BY LESLIE CURTIS.

Written for "The Railroad Man's Magazine."

SHINING rails, shining rails, beckon not to me.
My place is by the fireside, my children at my knee;
My place is by the fireside, with every loving bond.
Why does my restless, pulsing heart go seeking the beyond?
Why will my thoughts go roaming over mountain, plain, and lea?
Haunting rails, taunting rails, beckon not to me!

Shining rails, shining rails, let my spirit rest.
Even in my dreams I see lines that meet the West;
Even in my dreams I see prairie land and hill.
Hold me closer, love of mine. Restless heart, be still.
Ties of home take hold on me, drown the engine's roar—
Cruel, sneering, leering rails, torture me no more!

Shining rails, shining rails, glistening in the light,
You who greet the frozen North—meet the land of white;
You who greet the frozen North—ah, my thoughts run wild!
Who is crying, love of mine? Can it be the child?
Wilful thoughts stray back again from the frozen zone.
Maddening rails, saddening rails, go your way alone.

Shining rails, shining rails, turning toward the South,
Stronger is the loved one's kiss upon my willing mouth;
Stronger is the loved one's kiss—yet I seem to see
Sunny climes and graceful palms—they are calling me.
I must answer, love of mine! I'll return—but when?
Cruel, bitter, loving rails—I am yours again.

THE MAN WHO WASN'T GAME.

BY WILLIAM S. WRIGHT.

It Isn't Always Well to Take a Chance Acquaintance Too Seriously—He May Be an Enemy.

CHAPTER I.

Master of His Fate.

BROKE!

I, John Anderson, thirty years old, born of respectable parents, living until my twenty-first year in a thriving Western town, having had every advantage that education and kindly parental indulgence could bring, know the full meaning of that word—better, perhaps, than any other man on earth.

I do not bar the unfortunate who stands in the bread-line from night to night. I do not bar the needy mendicant who does not taste food for days at a time, and who begs from door to door. I do not bar the man who has spent his all and looks vainly for work. I have been broke—broke in every sense of the word.

I have been without money for years. I have known what it is to pick crusts of bread from the refuse of a kitchen. I have slept in public parks on summer nights, and stood in doorways on winter nights.

I have even begged to be taken into city prisons just to get some food and shelter from the cold. It is not so bad when one can find neither work nor food to spend a few days or weeks, or months even, in prison. At least there is some humanity inside the gray walls. A man can't starve, and he has a blanket to roll in every night.

But it is hard when a man is ambitious. I am ambitious. I want work. I want to live like other men. Only a little will satisfy me.

I have tried hard—mighty hard. I am not a believer in that thing called fate, but there must be something—something that keeps men down besides their own acts.

Why should I preach, or why should I even think? Have such men as I the right to do either?

Perhaps you can answer that question when you have heard my story.

At twenty-one I ran away from my good home. I resented a scolding that my father had given me—that was all.

We lived in Hampton, Wyoming—a conventional place of some ten thousand inhabitants. I was accustomed to purchase the household necessaries at the town stores for my mother.

On this particular day she sent me out with twenty dollars. It was a big sum to me. When I left her at ten o'clock in the morning I had no more intention of not returning home than she had of killing me. I kissed her good-by.

She told me not to harbor any ill-feeling against my father. But, somehow or other, I felt he had harmed me deeply. It wasn't what he said that hurt—it was the manner in which he said it.

Something possessed me as I walked down the street. A new light seemed to come into my life. I began to slowly realize that, as I had just come of age, I was of some importance in the world, and that it was up to me to put that importance to the test.

It was impossible to do so in Hampton. That "village," as I sneeringly dubbed it, was no place for me. What wouldn't I give to be back there now!

I was just turning into the main street of our town, when my will was strong upon me.

I would not pay the bills! I would not turn back! I would go!

I walked straight to the railroad station and secured a ticket for Omaha. Although the agent knew me, he didn't show any surprise when I purchased a ticket out of town. I suppose that I did it in such a mechanical way that it did not occur to him that I was purchasing the ticket for myself.

The train rumbled into the depot and came to a halt. It was then shortly after noon. In the scurry and hurry of alighting passengers and the good-bys of the departing ones, in the exchange of incoming and outgoing freight, busily handled by the depot men, I got aboard.

I found a seat in the rear of the smoker — a small, badly ventilated car; the fumes of bad tobacco were so dense that I began to be stifled. Some twenty men were lounging about the seats—some were asleep, some still smoking; but they all had the dismal air of tiresome travel.

Somehow or other, I did not think of home; that motley crowd of hard-looking men had arrested my thoughts. I began to wonder who they were, and whither they were going, if it really were possible for human beings to get so low in the scale of life, when my senses were punctured by a shrill voice: "All aboard!"

It was drawn out in the monotone familiar to conductors. The train gave a sudden jolt. The locomotive puffed—once, twice, thrice—and then it secured its momentum.

In another minute we were moving ahead easily, and faster—faster—faster. The familiar spots in the outskirts of the town went by—first in the easy stage of observation, then so fast that I was reminded only of the saying of some noted humorist: that the telegraph-poles looked like a fine-tooth comb.

It may seem incongruous that anything humorous should have entered my mind then. But, as this narrative will show, the humorous in life always struck me forcibly.

It mattered little about the seriousness of my condition; even with hunger gnawing at my vitals, I never failed to see the humorous side of a situation, and I presume that this optimistic streak, so to speak, is accountable for the fact that I am alive to-day to write this story.

We were soon in a part of the country that was strange to me. My thoughts then turned to my mother. I knew that she was now worrying because I had not returned home, and I pictured to myself her feelings when darkness came and I would not be home to join in our evening meal.

I did not worry about my father. I knew that, with his cold-blooded demeanor, he would simply look upon my departure as just what might happen to any young man. He had no sentiment. Life with him was all practical and matter of fact. We are simply creatures to shape our own destinies, he thought, and I was only shaping mine.

As we sped along, and twilight came, I tried to time the exact moment when my father would be returning home. I could see my mother, with tears in her eyes, telling him that something terrible must have happened to me, and I can see him denying that such was the case—that I was old enough to take care of myself, and that I would be sure to turn up all right in the end.

He had that all-pervading belief in human nature that any man thrown on his own resources, provided he has grit and determination, will ultimately land on his feet. And I knew that he lost no sleep that first night that I was absent from home, although my mother probably cried her eyes out, wondering if I were dead or alive.

When I reached Omaha, and stood alone and desolate on the sidewalk in front of the great railway station, I determined for a moment to return home.

But it dawned on me with much force that I was a thief as well as a runaway.

And yet, wouldn't my mother have given all that I had taken, and all that she possessed, if I would have returned that night.

It was too late now. The damage had been done. I was my own master—the designer of my own fate. Nobody could say a word to me as to what I should or should not do. I had only my own commands to obey. There is something in that.

Night came on, and it was pretty cold. I was hungry, and I wandered to a cheap restaurant near the station, where, for twenty cents, I secured a greasy beefsteak, smothered in a wad of greasy onions, and a cup of coffee that must have been brewed from the bark of a tree.

Compared with the plain, but well-cooked and tasty, meals that my mother so gladly prepared for our little home, this repast was like unto the swill that is thrown to hogs. But hunger is its own best cook, I have frequently learned since.

After I had finished my meal I walked down to the station and watched the trains as they were shunted back and forth in the yards. Railroads had ever a fascination for me, and I was getting deeply interested in several new passenger-locomotives attached to the fast trains for the East and West, when the darkness came upon me.

The myriad lights of the railway yards seemed to dazzle my eyes, and, before I knew it, I was blinking and tired. The next thing to do was to find a place to sleep.

My first impression was to crawl in some box car and pass the night. I saw three standing on a siding near a freight-station, and started across the tracks to them. A man yelled to me to go back.

Evidently he was on the lookout for tramps.

I sat in the station near the stove until another man—this one in uniform—came up to me and asked me what train I was waiting for.

I didn't know, of course, so he hustled me into the street again, with the forcible reminder that the station was no place for bums, neither was it a hotel.

It was too cold to wander the streets, which I would gladly have done in order to save my money. But when I remembered that on the morrow I would have to start out in search of work, it seemed to me that the best thing for me to do was to get a good sleep.

I walked along a dimly lighted thoroughfare and into another—I have traveled so much since that I do not remember the names — and finally my eyes caught a sign, faintly showing under a flickering gas-light that seemed destined to be extinguished with every puff of the wind, the sign:

ROOMS

10, 15, and 25 cents

MEN ONLY

I entered the place, and walked a dingy flight of wooden stairs to a landing, where the word "Office" on a glass door told me that I should apply there. There was only one light on the landing, and the odor—nay, let me now give it its proper name, *smell*—was enough to choke an ordinary mortal.

I entered the office. It was a dingy affair—a room of perhaps eight square feet, six of which were partitioned off by a brass net work. Directly in front of the door there was a window in the brass work, and through this a man thrust his head and asked me what I wanted.

"I should like to have a room for the night," I answered.

"How much?" he asked.

I remembered the sign outside, and my meager purse, and told him that the ten-cent variety would suit my taste just then.

"What is your name?" he asked as he pushed a book in front of me and handed me a pen.

I took the pen, and started to write at the place he indicated, but it suddenly struck me that I could not give my own name in such a place. I wrote down the "John"—that was common enough—but what should I indite as a surname?

Long training, or instinct, or Heaven knows what, forced me to make the "A," and before I knew it I had written the name "Andrews."

I have since read somewhere that criminals assuming names generally use their own initials; that there is some unseen power that guides the hand to do this, no matter how much the mind may force it to do otherwise.

"How old are you?" he asked when he had written my name.

"Twenty-one," I truthfully answered.

"Where were you born?" was the next query.

I hesitated. What difference could it make to him what I said?

"Chicago," I finally told him, with a tremor.

"What is your occupation?" was hurled at me.

"Clerk," I said, half under my breath.

He wrote down each answer as if each were gospel truth. He asked me one or two more questions—the names and ages of my parents, which brought forth blackened lies. I finally mustered up courage to ask him why it was necessary to pursue

this mode of cross-examination for the simple purpose of renting a ten-cent room.

He did not hesitate to answer. He gave it to me quick and straight from the shoulder. He said:

"So we will know who you are, in case you commit suicide. The law requires it."

He was a cheerless-looking, lantern-jawed consumptive of some forty-five years, into whose life disappointment must have crept and died. He didn't know just how deeply those words cut—and he didn't care.

He struck a great brass gong, and looked upon me with the calm indifference of one who knows a tramp when he sees one as he took the dime I handed him and thrust it in a cluttered-up cash-drawer.

His ring was answered by a shuffle of feet outside. A man rattled down-stairs and entered. It was evident that in this hotel the attendants cared but little for the comfort of the sleepers.

"Show him up to twenty-seven," said the man behind the brass work to the man who entered.

This second individual nodded to me, and opened the door. I followed as he started up another flight of stairs more dimly lighted than the first.

He opened the door of a room—a large, poorly ventilated room, in which a hundred men were sleeping. Then it came to me that my ten cents did not entitle me to a single room. My guide led me on among the lines of cots placed close to each other in perfect order.

It was dark—only a red lamp gleamed over the solitary door to show the way out, in case of fire. We walked almost to the end of the room, when he stopped in front of a vacant cot, pointed, and made his exit.

There were no tips in that hostelry.

The vacant cot to which he pointed was "twenty-seven." I looked at it a moment and then sat down on it. My hands touched the musty blanket and the hard pillow, and a shudder ran through my body. Then I tried to look around me.

On every cot, so far as I could see, was a man. Some were asleep, some must have been awake, many were snoring like sawmills, and many more were restless; but all were human derelicts, with no story to tell about themselves.

All, perhaps, had given fictitious names—just as I had—and if all committed suicide, or if the place burned down and all were incinerated, who would mourn them?

But the odor of the place—the foul, impure stench! It made my head ache. For a moment I thought of the cleanliness of my own home, and the pride that my good mother took in keeping it wholesome. A tear burned on my cheek. I threw myself on the cot without removing even my coat or shoes.

I wanted to go to sleep and forget everything.

I buried my face in that awful pillow. It was a hard, canvas affair, without any pillow-slip, and scores of heads had rested there before mine.

But it did seem good to lie down, even if the odors of the place were getting more and more unbearable, and the snoring and the restless occupants were on my nerves.

As I listened to them, a terrible wave of real homesickness completely engulfed me. I grew restless, I cried, I even moaned.

I would have given anything—anything to have been home! I knew the torture that my mother was suffering for me. Her voice was calling. The darkness frightened me. Those men around me seemed to mock the good that I had in me. I wanted to go home—I wanted to go home!

The next thing that I knew, some one was prodding me violently in the middle of the back.

CHAPTER II.

The Man in the Next Cot.

I HAD been sound asleep. Whoever was trying to awaken me evidently had been working pretty hard in that direction, for before I regained my waking senses he had poked me violently with his fist, and always in the same place in the middle of my back.

Thinking that something had happened, I sat up. The man who had been so intent on waking me was the occupant of the cot beside mine. He was a short, sandy man. He wore a cheap, black suit, which was much the worse for dirt, and a blue shirt.

His hair was long and disheveled, and his stubbly beard, offset by a mustache that was reddish and somewhat heavy, gave him an appearance that was not inviting to a young man who had just thrust himself alone on the mercy of the wicked world.

He was the first to speak.

"Time to get up, pal; they'll throw you out of this dump in a few minutes."

I thanked him, and looking around me I noticed that the cots were being slowly emptied one by one.

"Come with me and I will show you where to wash," he volunteered.

I followed him. I suppose that I would have followed a dog. I felt that it was easy then to follow anything save my own inclination.

He led the way across the hall to a smaller room opposite the one in which we had slept. Around a battered sink, a score or more of men of all ages were rubbing yellow soap on their hands and into their eyes and ears. Then they would plunge their hands under the faucets from which flowed goodly streams, and rinse the suds away. They seemed to be enjoying it.

The water looked refreshing, but there was a dismal taste in my mouth and a stickiness about my face and hair that seemed to defy any cleansing property on earth.

I removed my coat, collar, and tie. I waited patiently until there was an opening—and then I washed; indeed, I seemed to be cleansing my very soul. My, but that water was good!

Now for a rub on the towel. But, alas, there were only three towels and they had been used so many times by so many men that they were not only slopping with water but black with dirt. I hadn't the courage to tackle one of them, so I deftly extracted my handkerchief from my pocket and began to use it to dry my face and hands.

Some one was laughing at me.

I turned. It was the unkempt being who had so rudely awakened me.

"Not used to this sort of thing, sonny?" he said.

My mother had taught me to look only on the pleasant side of things, and especially in dealing with my fellow man. I remembered this, and while I resented his unseemly impertinence, I smiled at him as if it made no difference to me whether I used a handkerchief or towel.

I finished drying and started for the door. He followed me. I made for the street, and he was close at my heels. I reached the sidewalk and looked around me. It was a cold, bleak morning, and to make matters worse, a dismal rain was falling.

I looked in the direction of the railroad station only a few blocks away, and my eye caught a huge clock—it pointed to the hour of seven. That was the hour when all the sleepers in the place where I had passed the night were turned into the streets.

I thought that I would go over to the station for a while. It would be interesting now to watch the trains and the men going to work—and, maybe, I would be fortunate enough to find employment.

Just as I was starting away my "friend" who had lurked in the doorway of the hostelry came out and approached me.

"Can't we go and get a little breakfast?" he asked.

It wasn't a bad suggestion. I replied that I thought that I would go somewhere for a cup of coffee.

"I'll go along," he responded. "I know a place up here a block or two," and he jerked his head in a direction opposite from the railway station.

We walked along together. He asked me my name. I told him that it was "John." I did not attempt to give him my last name.

"Mine's Billy Brown," he volunteered. "Say, let's be pals. Where are you heading for."

"I'm going to look for something to do when I've had some coffee," I said.

He smiled as if I didn't mean it. We exchanged a few more commonplaces when we reached a dingy restaurant. It was dignified by a huge sign over the door, announcing that coffee and cakes could be purchased for ten cents and by a dozen or more sad-visaged pies in the show-window.

Billy entered first. I followed. He led the way to a table in the rear of the place, and brushed the multitudinous flies from the oil-cloth with a sweep of his arm. He took a chair opposite me

and there we sat awaiting the coming of the attendant.

A fat girl with her hair still in papers, hastened in from the kitchen with her mouth full of her own breakfast, and tried to ask us what we would have.

"Coffee 'n' sinkers," said Billy.

A nod from me indicated to her that I would take the same.

She vanished, and before she had time to return with two thick and steaming cups of a concoction that might have passed for coffee with a horse, and a plate containing six leaden links that were never intended for anything but sinkers, Billy had leaned over and was becoming confidential.

"If it's work you're looking for, pal, I want you to stick to me, an' I can put you wise to a little job in this town that will make us both rich."

"Something you're interested in?" I said, with all the enthusiasm I possessed.

"Yes. It's a hotel down here."

"A hotel," I echoed. "What sort of a place—are you going to open it?"

"To be sure I am," he answered. "I won't say anything more about it now, but you meet me to-night, at eight o'clock in front of that joint where we slept last night, an' I will tell you all about it. I can't do it now!"

He said some other things which I do not remember while he soused the sinkers in his coffee and dripped the liquid onto his vest while trying to guide the combination to his mouth. Indeed, I thought that he was a little excited, but put it down to his prospects.

"You're the kind of young man I like," he continued. "I saw you come in last night. I watched you as you sat on your cot. I heard you cryin'. I couldn't go to sleep."

"I don't blame you," I said. "It is a dirty hole. I never slept in such a place before."

"I thought so," said Billy. "But it ain't so bad when you get used to it."

Would I ever get used to it?

Billy choked the last bit of leaden sinker down with the last gulp of near-coffee, and the fat girl appeared again.

"Which one of you gents agoin' to pay fer this?" she asked.

I fumbled for my share of it, but Billy said, "I will," and taking two dimes from his pocket handed them to the girl. I thanked him, and noticed that the girl was eying him pretty steadily.

"Think I seen you afore," she observed with a peculiar squint in her right optic.

"Why, I always come here for breakfast, don't I?" asked Billy, smiling.

"Don't gimme none of that con," replied the girl. "You ain't no reg'lar in this dump. I knows 'em all. I seen your picter in th' paper, an' it didn't have them whiskers on it, neither."

Bill laughed and I laughed as we arose and started for the door. Just as we were emerging into the street, Billy called back: "Guess you've got another guess comin', sis."

"Mebbe I ain't mistaken," shouted sis.

I felt a little better. The food, the man's companionship, the promise of the work, the girl's blarney were all needed to balance the bleakness of the weather. Perhaps it wasn't going to be so hard to face the world after all. Perhaps I would find in Bill a good friend.

We walked to the station and sat down under the shed. He bought a newspaper and scanned it hurriedly. Then he passed it to me. But I didn't care to read.

"Tell me more about the hotel job?" I said.

"S-s-sh!" he replied, and looked queerly about him. "Don't speak of that now. I'll tell you about that to-night."

He looked around him again.

"Come," he said, "there is a park right up here. Let's go up there and sit for a while. It's much pleasanter than here."

"But it's raining," I said.

"That's nothing," he answered. "I know a place that beats this for shelter."

He started and I followed. I turned my collar up around my neck and thrust my hands into my pockets, for it was getting colder and colder—and I couldn't imagine why he wanted to leave the station where at least we were sheltered from the wind.

We entered a street that seemed to be a business thoroughfare. Neither of us said a word. After we had walked some three or four blocks I noticed two tall business-like men crossing the street in our direction.

They were looking straight at us.

There could be no mistake about that. I thought that they might be friends of Bill, so I nudged his arm.

Bill looked and caught their eyes. Then as if possessed with a demon, he suddenly turned and ran.

One of the men started after him, and I noticed that he pulled a pistol as he did so.

I stood stock still watching my vanishing companion and his pursuer, when the second man walked up to me and laid his hand on my arm.

"Anyhow, we've got you," he said.

"Me!" I said, choking and burning, "I don't understand—"

"You're under arrest!" he answered. "Come with me!"

He began to lead me away by the arm; I heard a pistol-shot—then another. They seemed to be very close by.

Suddenly a crowd emerged from a side street. Bill had doubled on his tracks and was being pursued by the populace back to the spot where he had first seen the strangers.

I saw him coming in my direction. The man with me took a tighter hold on my coat.

I made a desperate effort to free myself.

This only made him grab me the tighter. He threw back his coat and exhibited a silver shield on his breast, on which I hastily caught the word, "Detective."

I knew then it was foolish to make resistance.

Bill was running in our direction. It was plain that he didn't see us.

The hunted look on his face, his staring, determined eyes, haunt me to this day.

On he came, the crowd close at his heels, yelling, "Stop thief! Stop thief!" The second detective was following in the crowd, but it was evident that he was afraid to shoot now for fear of hitting some one in the mob.

Then, as Bill came toward us, the detective, who was holding me calmly, reached to his hip-pocket for his pistol. I saw it gleam in his hand.

I saw him deliberately put his finger on the trigger—and wait.

He waited until the unfortunate man was barely twenty feet away, then fired straight at him. I saw Bill throw his hands up and stop just before the report—but it was too late.

Bill fell in the street, a great crowd around him. My custodian took a grip on my wrist, twisted it so that it brought my hand up to the middle of my back—and marched me off to jail. A crowd followed, and I could hear occasional mutterings about "bank" and "robbery"—and then it came upon me that I was in bad.

I tried to explain my position to the officer. He would not listen.

I was marched to the door of the city prison. An officer opened it, and closed it with a clang when my captor and I were safe inside. The latter did not relax his hold on me until we stopped in front of a high desk, behind which sat a heavily uniformed policeman—the head of his district.

"What have you got, Clancy?" he asked my captor.

"Doyle an' me landed Red Pete, the bank-robber, this morning."

"Did you have to shoot?" asked the man behind the desk.

"Yes. I pulled on him. Let him have it straight."

"Is he dead?"

"Don't know. It's pretty hard to kill them guys. He fell, anyhow, an' I hustled this feller off here."

"Who's this?" asked the man behind the desk.

"This," said Clancy, as he jerked me around so that I faced him, "this is Red Pete's pal. He's the fellow who pulled off that robbery at the Eagle Hotel on Monday night."

(To be continued.)

A work-train may be carrying as good brains as a private car, but you've got to prove it. It's what you are that counts, not what you claim to be.

Observations of a Country Station-Agent.

BY J. E. SMITH.

No. 26.—In Which Schwartz Tells of His Troubles While Purchasing Right-of-Way from Farmers, and Especially with "Pap," an Unwashed Antique, and His Bonehead Son.

IT does not particularly matter what department of railroad work a man looks into, there is likely to be found something of interest—something out of the ordinary, showing unexpected slants of human understanding.

The greatest mind of the literary world made the truthful observation that "there are sermons in stones." On the railroad that means the stone-mason gang. If the stone-mason gang furnishes thrills of romance and adventure, why not the fence gang, the section gang, the bridge carpenters or the lineman? And it is true that in all these places there are stories of unusual experience and human interest.

A seeker of railroad stories should search these out-of-the-way places, and poke and rake about in these unpromising fields, and he is often rewarded with a find.

I had this idea in mind when one long day last summer I fell in with Schwartz.

Schwartz is our railroad real estate man. We are double tracking our road and Schwartz had been buying additional right of way along the line.

The public call it "double tracking." We of the railroad allude to it as the "second track." Both mean the same thing.

All along our right-of-way we needed little strips of land, ten, twenty, sixty or a hundred feet wide to complete the work of the second track.

It looks easy to go out among our neighbor farmers and buy, for a fair price, small parallel strips of land.

But Schwartz was sad and sunburnt. He talked disparagingly of the farmer.

"Don't make the mistake," he said, depreciatingly, "that the farmer is either an easy mark or that he is a friend to the railroad. He can't be coaxed, wheedled, cajoled or frightened into giving us an inch on a fair basis. He won't meet us half way—not a quarter of the way. He won't even come a foot in our direction.

"We've got to run him down and bivouac on his own premises, and hold him while we explain that we want a strip of his land, and that we will pay him well for it. When he finds we must have it, he sees at once that the land lying along the railroad is the most fertile on the farm, and that we are about to rob him of his most valuable possessions.

"Then he digs into the past for a generation or two, and revives all the old grievances of fencing, drainage, fire and stock claims he has ever had against the railroad, lumps them into a fine round aggregate, doubles the value of the land, stacks it all up in one grand total, and puts it up to us that we can have the strip—probably an acre all told—for nine hundred and forty dollars and eighty cents.

"This pays all the old debts that we do not owe, and includes the farmer's future good will, together with the ulti-

matum that not a "durned cent less will buy it."

When you tell a farmer that the railroad has made his farm what it is, and that without railroads his farm would not be a third of its present value, he looks at you with innocent surprise and asks:

"What would your blamed old road be if it wasn't for the farms, huh?"

That's the kind of an argument that goes around in a circle. It's nix on a farmer, because he knows he's the center of the universe.

"Take this country through here," continued Schwartz. "I had to purchase twenty-three strips along our right-of-way for the railroad. What did I run up against? Three things—sentiment, sharp practise, and pig-headed obstinacy.

"Maybe you would be interested to hear some of my experiences; you would, eh?"

Schwartz lit a stogie designed in Wheeling, slid down in the seat until he rested comfortably on the small of his back, and hung a few clouds of smoke about the circumambient. Then he began:

"I said sentiment, didn't I? You did not know people are sentimental about land, did you? Well, they are. The farmer and his family are associated very closely with inanimate things, and they become attached to them. His hedge fence, his meadow, his strip of woodland, all appeal to him with a sort of dumb affection that a man without a soul cannot understand."

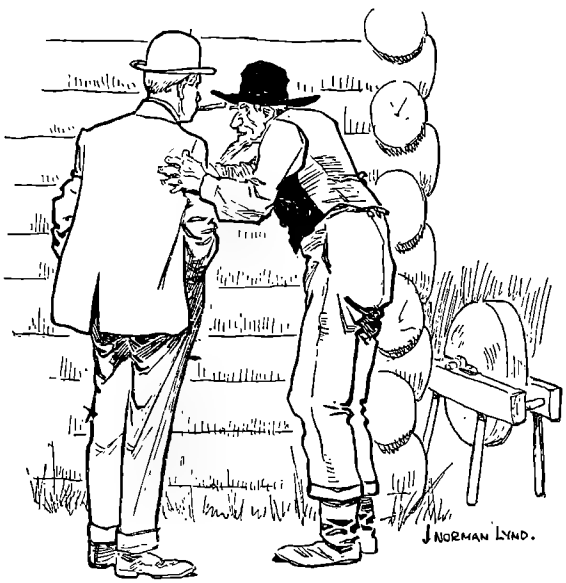
I gave a quick nod to show that I understood.

"All the farmers I approached with the explanation that we wanted a strip of land to allow the railroad to spread out a little, came back with the same expression, 'I ain't got no land for sale.'

"Then I explained that the railroad must have it. That its business had outgrown its present facilities. It now must have two tracks. That the business of the country is greater every year, and that we are forced to increase our capacity to take care of it. I presented ourselves in the attitude of having to do this. That we were compelled by conditions to spend vast sums to enlarge our plant. We were driven to it and in reality we were unwilling purchasers of the strip of land needed.

"After I had presented the matter in this way to the first farmer I visited, I was pointedly informed that he had no land for sale.

"Now, the land was in his wife's name—a little forty-acre farm—and the poorest kind of a place. All we needed of it was a strip of twenty feet along a gully to give us room for a fill, and



"HER PA PLANTED 'EM THERE THE DAY HIM AN' HER MA WAS MARRIED."

the ground was so poor along there that grass would hardly grow on it.

"I offered them three times the real value, and I knew they needed the money.

"After a little while the man was willing to sell, but the woman would not listen to it.

"I argued the case with her, and told her as I told them all, that the railroad would take it anyway.

"We can take any property for the operation of our trains, through condemnation proceedings, but we only resort to the courts when everything else has failed.

"So I explained to the woman how we would proceed if she did not sell it to us, and how it would be to her profit to accept the figure I made her rather than drive us to that extremity.

"She was a little weezen, shrunken creature, and I saw she had a horror of going to the court, still she would not budge an inch.

"She did not try to drive a bargain. The price gave her no concern. She simply would not sell, and her reason was the purely feminine one of 'just because.'

"She shed tears and became hysterical.

"'I would sell anywhere else on the farm except right there,' she cried.

"We could not use a strip anywhere else on the farm. We had to have the twenty feet at the gully to widen our fill. I tried to make her understand it that way, but she was absolutely immovable.

"It puzzled me why she was willing to part with a strip any other place, but was so unreasonably unyielding at the very spot we actually had to have.

"The man did all he could for me, but we made no headway with the woman.

"At length, he led me out behind the log barn and made a shamefaced confession.

"'I'm ashamed of her, mister; I am, for sure,' he said, with a sort of weak-eyed lowliness. 'It's just a durn cranky idee of her'n. They ain't eny sense in it. You know they's two old apple-trees on that strip. That's the reason! It's them! They ain't much account. Her pa planted 'em there the day him and her ma was married. They was two children, you know—my wife and the one that died. They wus raised under them trees.

"Her pa ust to say he had four in his family: Ann and Sade and the Rambow and the Pippin tree. And, mister, if that woman has any sewing or work of that kind to do, when the days are warm, you'll always find her right out there under that pippin-tree. 'Tain't the apples, mister; it's 'cause of her pa. I hope you won't tell eny one, mister; I'd hate for it to git out. It 'ud kind o' disgrace us. You see, you'd cut 'em down. That's what worries her, mister.'

"I assured him I would say nothing. I also assured him that we would drop the matter for the present and give her time to struggle with her feelings. I left with the utmost contempt for that shriveled husband, who was ashamed and apologetic for perhaps the only touch of sentiment that had ever come under his observation.

"There now comes some darker history. Within six weeks both trees were dying. When this became apparent we had no trouble completing the deal and

"I DID NOT WANT TO BE UNREASONABLE AND HOLD YOU UP."

taking the possession of the strip.

"Why did they die? The husband told me with a half-exultant smirk and a cunning side whisper.

"He bored them to the heart, filled the holes with a solution of common salt and s o m e t h i n g else, and then plugged them up.

"His wife thought it was Providence.

"The husband saved himself the disgrace of his wife's emotions, and at the same time fastened his clutches on some railroad money.

"While this deal was pending I was busy with others in the s a m e neighborhood. I made headway slowly.

"I could have dealt with many of the farmers without much delay, but I found that each had a pride in being able to drive a sharp bargain, and was fearful his neighbor would do better than he. They were all touchy on that point.

"PAP'S GOT HIS MIND MADE UP. SO HEV I."

"Nothing hurts the pride of the farmer, or humiliates him more, than to ascertain that another farmer has driven a better bargain.

"They can talk to me of captains of finance, industrial promoters, and hot-air purveyors of the cities, but when you undertake to put one over on a haystack artist you have got to be a pretty peart citizen or you will lose a bunch of cuticle in the operation.

"All this made it hard for me to secure an opening. Each farmer decided to wait until he saw what I was paying the others.

"I found it necessary to at least close one transaction, and thereby establish a price, so I selected what appeared to me to be the meekest brother for the initial onslaught.

"I picked him out from all the rest. He was a little, unassuming, pious, non-resisting man. He agreed so readily with all I said, and admitted every proposition so fully and freely, that I began to think he was going to make us a present of the strip through his farm.

"I felt impelled to remind him that the railroad really had the money and was willing to pay a fair price. I wanted to caution him not to throw his land away.

"I admired and commended his broad public spirit, but I made it plain to him that the railroad did not expect this additional right-of-way strip without making some payment.

"I was to call on him again in two days. He wanted a little time to do some figuring. He wanted, you understand, only what was exactly right, but he could not tell offhand; and if I would come back in two days he would give me his proposition in writing.

"I went away in high spirits, and returned ditto.

"I felt that he was a conscientious old man, and I was sure he wanted to trim down his figures to the lowest possible limit.

"When I returned, he bade me sit. He asked after my personal welfare with a kind of Christian solicitude and humility.

He asked about our railroad, and expressed the mild hope that it was prospering.

"'Some people are prejudiced against railroads,' said he, 'but I ain't. This country wouldn't amount to much if it wasn't for railroads. Some people are always taking advantage of them and holding them up for everything they can get out of them. I never believed in that. Right's right. I believe in being as fair and square in dealing with a railroad company as I would with one of my neighbors.'

"He handed me an envelope.

"'It's all wrote out and put down in black and white, what I will take to deed to the railroad that ten-foot strip. We're ready to make the deed any time. We'll sign up the papers any time you want us to. That ten foot amounts to three-sevenths of one acre. I called it a half-acre. That's clost to it. I figured everything purty clost. I did not want to be unreasonable, and hold you up, like some people do.'

"You asked me what the envelope contained. I haven't yet recovered from the shock of my first glimpse of the 'within document.' Remember, this party was hand-picked for an opener. His talk was so smooth and fair. I thought I was going to make a fine start. Mind you, I told him, in an hour of weakness, not to give his land away — that we actually wanted to pay something.

"There were four foolscap pages of disgusting details, itemized and listed in a fair hand.

"The grand total—the final consideration—for the one-half acre of raw farmland was carried to the very bottom of the last page and set down in large bold figures.

"What do you think farm-land sells for around here? One hundred dollars an acre. That's a fair average. A half-acre would be fifty dollars. I would gladly have paid him twice that, but I'll be jumped up if that innocent, unsophisticated personification of justice didn't make his figures on it one thousand three hundred and forty-two dollars and ninety cents!

"And I picked on him as the easiest one of the bunch. That's what hurts.

"How did he arrive at that magnificent total? By going back to the time of Adam and coming down through the Dark Ages to the present day.

"You see, he thought he had us—that we had to buy his half-acre at any price—so he added everything to it he could think of.

"There were crumpled-tailed pigs, woolly sheep, short-horned cows, and other domestic animals slaughtered at regular intervals in time past by the railroad, and settled on a compromised value. All of these were indicated in an appalling list, and the difference justly due, as viewed by the owner, was carried out as a debit.

"For instance, here are some of the items that I remember particularly:

"'June 5, 1873, the company's train killed a spotted calf. They paid me ten dollars. I consider the actual value of that calf, twenty dollars. Balance due me—$10.'

"'On an average, they kill one turkey, goose or chicken every two weeks. They do not consider a claim for a fowl. They say it is of no consequence. In forty years they have killed 800 fowls. 800 fowls at thirty cents each — a very low average—leaves due me for poultry, $240.'

"'The railroad furnishes a highway for tramps. Tramps steal annually from me ten dollars' worth of produce. Total, forty years, at ten per year, $400.'

"'The railroad section-foreman has carried water from my well in the barnyard for 40 years for his gang. Five per cent of cost of well and pump upkeep in forty years, $63.20.'

"'Twenty-eight engines a day pass my field on the south, emitting dense black smoke which obscures the sunlight on ten acres, thirty minutes a day. Retards growth and maturity of crop one twenty-fifth. Total, two dollars per year, 40 years, $80.'

"Can you beat that last item? And to think, I picked on the author of it as the easiest one of the bunch."

Schwartz threw away a half-smoked cigar in disgust.

"Oh, yes, we finally got the half-acre. He came across. But not until we had our lawsuit with Blairs. Cost us about three hundred. That's so much we don't like to talk about it.

"I must tell you about the Blairs—there were two of them, father and son. They owned adjoining farms along the right of way. We needed a twenty-foot strip of each farm.

"I called on the younger Blair first. He gave me a very cool reception.

"'This is my land,' said he. 'I own it, and I pay the taxes on it. When I want to sell any of it to the railroad I'll let you know.'

"Evidently it would have held up our second track work a long time if we had waited for Blair to let us know. He did not seem to be the 'let you know' kind. So I conveyed the information to him, with a sort of confidential assurance, that when a railroad had to have more land for additional running track, it could go into court and get it by condemnation proceedings.

"I added that we wanted to deal fairly with the people, and that we expected to pay more than the land was worth, but that we would not be held up for exorbitant figures, and that no man nor set of men could block the outlined improvement!

"This plain talk had no effect on Mr. Blair. He batted his weak eyes with a wise owl snap, and informed me once more that the land was his, and that when he wanted to sell any of it to the railroad, he'd let me know, etc. After that he assumed a sullen silence, and I made no further headway.

"'I will see your father,' I said, taking up a new lead, 'and see what he thinks about it. If I can come to terms with him, I should be able to do so with you.'

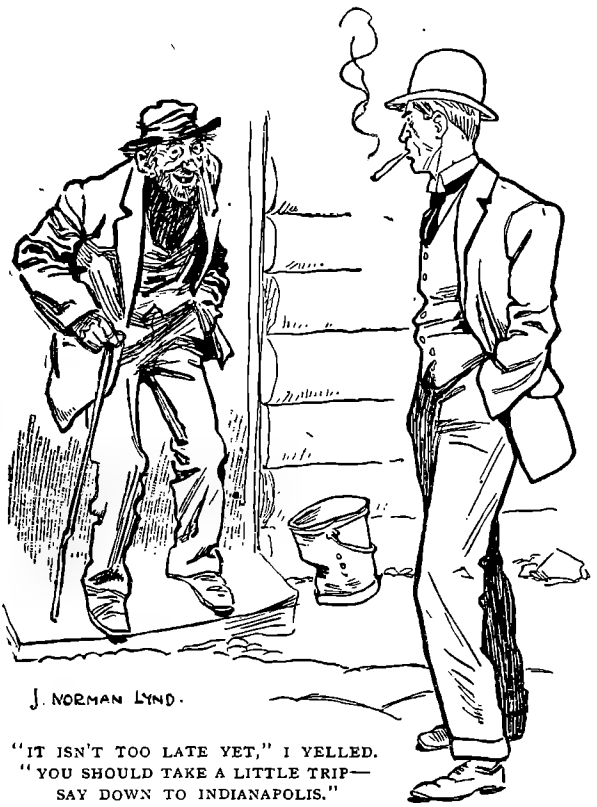
"'You can see pap if you want to, but it ain't no use,' said Blair. 'Pap's got his mind made up. So hev I. Ain't enything can change us.'

"'It can do no harm to explain matters to your father,' I argued. 'I want to put our proposition before him and give him the railroad's reason for wanting a strip of his land.'

"'Pap knows his business. So do I,' Blair interrupted. 'When we want to sell any land to the railroad, we'll let you know.'

"He disposed of the whole matter a number of times by that ultimatum.

"Nevertheless, I went at once to 'pap's' house. 'Pap' was about the finest old ruin I have ever seen. He was unkempt, unwashed, and uncared for. He had defied the invasion and ravages of all the germs of germdom, and had scorned every known law of sanitation. As a consequence, he was only eighty-seven years old, and deaf at that.



"IT ISN'T TOO LATE YET," I YELLED. "YOU SHOULD TAKE A LITTLE TRIP—SAY DOWN TO INDIANAPOLIS."

"All about him was a state of decay. The house was an early-day log. One corner had sunk down close to the ground, like a tired horse shifting its weight on one leg.

"I yelled my proposition to him with all the details; then I paused, partly for breath and partly for him to give some expression. He asked with a child's innocence:

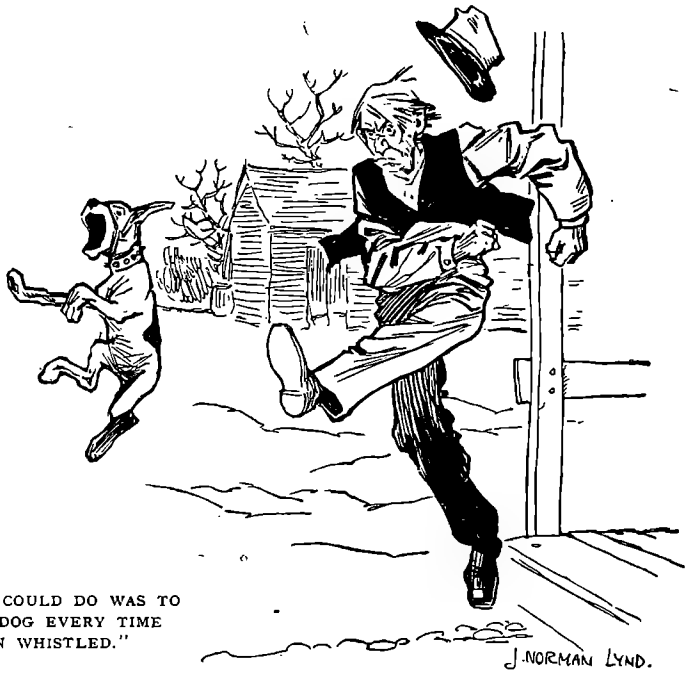
"'How old do you say I be?'

"'About sixty-eight,' I said, aiming for a complimentary shot.

"He gave a dry cackle.

"'I was eighty-seven, second of last March. I ain't never rode on a train.'

"'Never rode on a train?' I repeated.



"ALL 'SON' COULD DO WAS TO KICK THE DOG EVERY TIME A TRAIN WHISTLED."

J. NORMAN LYND.

"'No! Never been inside of the cars. Eighty-seven the second day of last March, and never rode on a train.'

"'It isn't too late yet,' I yelled. 'You should take a little trip—say down to Indianapolis—some day.'

"'Me ride on a train? Not me!'

"All at once I understood him.

"People have various ambitions. Almost every one wants place, power, or riches, but this old man wanted to be a curio. He wanted to be the prize fossil. He wanted to be pointed out as the man of eighty-seven who had never ridden on a train. The distinction he craved was that he had stayed hitched true to the prehistoric.

"'People come from all around to see me,' he added, with a show of pride. 'At the old settlers' meetin' I sets on the platform, and the speaker tells 'em all about it. No, sir, never rode on a train.'

"With superficial ejaculations of wonder, I got back to the original proposition and endeavored to show the old man that selling us a strip of land twenty feet wide would in no way impair his value as an antique. All I could get out of him was that he had never rode on a train. I showed him the land was rather poor where we wanted a strip, and that altogether it amounted to only seven-eighths of an acre—

"'He never rode on a train!'

"—And that we would pay him double its farm value, and build him a new hog-proof fence clear through—

"'He never rode on a train.'

"—And that we would take care of his surface water, and our stone arch would be deepened to improve the general drainage of his place—

"'He never rode on a train.'

"After a fruitless chase around a circle a number of times, I sought the son.

"'I ain't got nothin' more to say,' said the son, squinting at me through narrow eyes. 'I'll do what pap does, and nothin' else. If pap will sell you a strip, I will. But, understand, we ain't got no land for sale. Gidup!'

"I beat it to the old homestead to have another talk with pap.

"'I'm back again,' I called out cheerily. 'I just had a talk with your son. He says that if you'll sell us a strip of your land, he'll do the same.'

"'He told you so, too, didn't he? Yes, sir, I ain't never rode on a train!'

"'He said he'd sell if you—'

"'Some people say it ain't so. I kin prove it! No, sir, I never rode on a train and I'm eighty-seven—eighty-seven the second day of March.'

"'You see we must have the land—'

"'Ain't many can say what I can when they git as old as I am, that they ain't never rode on a train!'

"I hurried to the son.

"'See here,' I said to him. 'I do not think I can come to any agreement with your father. He doesn't seem to grasp the proposition I am making.'

"'Well,' replied the son, 'I'll do what pap does. But we ain't got any land for sale. Gidup!'

"I could not make any headway with that precious pair. The son was hostile but evasive. He kept me running to 'pap' on an impossible errand. 'Pap' was complimented with my visits. He thought I was down there through a keen curiosity to see the rare old man, the backwoods oddity, the pioneer wonder that had never ridden on a train.

"Negotiations came to a standstill.

"I threatened 'son' with court proceedings.

"The answer he returned offhand was that if any railroad man attempted to come on his side of the fence with pick and shovel or a surveyor's outfit, he'd fill him full of buckshot.

"He put up a sign 'No trespassing.'

"Now, the progress of a great enterprise does not halt at a sign, nor can it be stayed by the buckshot argument of a hostile land owner. In this case we went into court.

"They opposed us at every angle and they were venomous in their opposition.

"But we got the land, and we paid them less than we had offered before we started proceedings.

"The whole thing was nothing but pig-headed obstinacy arising from an ignorant prejudice against railroads.

"It was a great revelation to 'son' to learn that land belonging to him could be taken for railroad purposes regardless of his attitude in the matter. He could not understand it. He did not know there was anything beyond private ownership. He does not know yet what they mean by 'rights of the community' and 'eminent domain.'

"As for 'pap,' that fine old antique, he got to tell the judge, the lawyer, the appraisers and all others in the case, that he 'hadn't never rode on a train.'

"Encouraged by a cunning lawyer who found him good picking, 'son' came back at us with suits for damages, suits for trespass, and injunction proceedings.

"Nevertheless, we fenced off the strip. A trusty steam shovel reduced it to the proper grade, and a new track holds it forever.

"For a long time, all 'son' could do was to kick the dog every time a train whistled. And 'pap' not only assured all concerned that he'd never rode on a train, but 'ding blast his hide if ever he would.'

"By and by, a new and brilliant idea percolated 'son's' thick head.

"He plotted a half acre of ground on the top of the hill, and named it 'High Point Cemetery.'

"It abuts the railroad right-of-way, and the railroad can never encroach on that sacred reserve. We can never again widen our right-of-way on his farm.

"The law recognizes a burial-place as a hallowed and consecrated spot. 'Son,' in his malicious resentment, has headed off any further advance we may ever want to make in his direction.

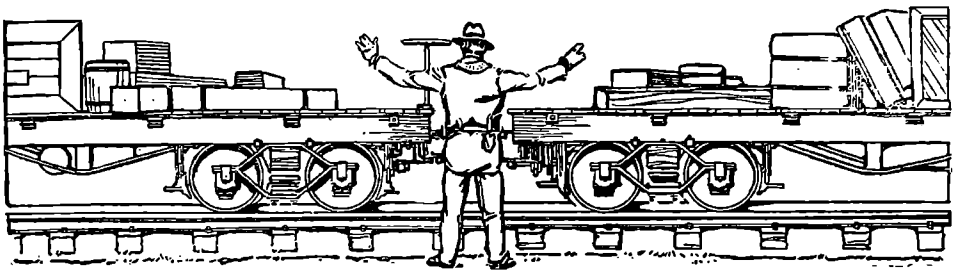
"Kind and considerate Providence helped the scheme along by removing 'pap' from this 'vale of railroads.'

"'Son' planted him one foot from the right-of-way fence.

"They will not expect the railroad to furnish an epitaph, but here's one anyway—borrowing an expression from a pure-food-law label. It has the flavor of Shakespeare:

P. A. P.
Lived 88 years and never rode on a train.
Was agin all things that's modern,
Automobiles, baths, and phones.
And curses be on the railroad
That dares disturb these bones.

"I could tell you more," said Schwartz, "but I'm out of stogies. I need the dope to keep me thinking."



THE GOLD COUPLER.

BY AUGUSTUS WITTFELD.

The Star Detective Uses His Skill and Mental Telepathy to Penetrate a Mystery.

CARLOCK BJONES was the star detective of the Pole-to-Pole Railway. When I stepped into his sumptuous apartments and found him intently scrutinizing a coupling-pin, he gave me a quick glance, and said:

"Ah, Watchem, I see you have lots of leisure: and as your wife has gone away, I feel that I can depend on you to join me in this case."

I gasped.

"Remarkable!" I ejaculated. "It beats the time-table how you deduce these things that none but myself am aware of."

"Dead easy," he replied. "You have on a bright red necktie. That fact proclaims to the world that your wife has gone to the country. You generally shave yourself; but, as you have a clean shave and your face is free from gashes, I know that you have been to the barber's. That, and the fact that you have been playing pool, is evidence that you have time to offer up on the altar of ennui."

"But how do you know I have been playing pool?" I asked in an awestruck voice.

"Well," he replied, "you have chalk on the lapel and tail of your coat, and also between the thumb and forefinger of your left hand. That can indicate nothing but that you have been playing pool."

"I might have been playing billiards," I suggested.

"Yes," he replied; "but you don't know how."

"Carlock," I commented, "you're a wonder. What is the case you are working on?"

"This," he replied, "is the most perplexing case that has come to my notice since I recovered my sanity. The time Pushem lost forty minutes on his run, and I was assigned to the task of discovering and returning them, was a kindergarten proposition to the problem that confronts me now."

He paused, and, filling his pipe with a piece of oily waste, he lit it. Then, baring his arm, he vaccinated himself with an ivory point.

"I am doing this," he said, "to make it difficult for me to catch anything. I hate to work on an easy job."

"But what is this case that is baffling you?" I asked.

"Watchem," he replied irritatedly, "how often have I told you that you should be more perspicuous in your remarks? I am not baffled. I am never baffled. I may be perplexed, but not baffled. Perplexity is what gives zest to my art.

"The only time I was baffled was when I was run over and cut to pieces by the night express. Then my skill in putting jig-saw puzzles together stood me in good stead, and I was quickly on my feet. What baffled me was the fact that people thought me a dead one when I was merely run down.

"I received this coupling-pin in a letter this morning. Even with my wonderful power of perception, which I have cultivated with the latest approved patterns of cultivators, I might have overlooked it had it not dropped from the envelope and struck me on the pedal extremity. Had it struck me on the head, I would not have thought much, but I instantly reasoned that there was something on foot."

He opened a sub-cellarette, and pouring out a glass of benzin, he tossed it off neatly. Then, striking a lucifer, he ignited his breath, and his face was illumined.

"What is it?" I gasped.

"Just a light luncheon," he replied.

When he had finished his naphtha lunch, he picked up the coupling-pin and gazed at it intently.

"Watchem," he asked, "do you notice anything unusual about this coupling-pin?"

I gazed at it quizzically.

"Nothing," I replied, "except that it is a coupling-pin."

"Watchem," he said, "I cannot see that the constant grind of domesticity has sharpened your wits appreciably. Cannot you see that it is made of gold?"

"Wonderful," I ejaculated.

"But why should any one send you a gold coupling-pin?" I asked.

"Let us reason this thing out by deduction," he replied.

"Had the sender wished me harm, he would have sent me a dynamite bomb or a safety-razor. The fact that he sent me a coupling-pin can indicate but one thing, and that is that he wishes to couple up with me. You don't have to be link's-eyed to detect that. But the motive? We must search that out. What do you make of it, Watchem?"

"I'm afraid I'll have to give it up," I ventured.

"Yes, but I don't propose to," he replied. "It's not every day that some one sends me a gold coupling-pin, and I propose to keep it."

"Did the letter give no clue to the sender?" I asked.

"Ah, Watchem," he commented, "you are improving; I had forgotten to read it."

He rescued the letter from the waste-basket, where he had thrown it, and, shutting his eyes, he read it to me.

It ran as follows:

MR. CARLOCK BJONES, NEW YORK CITY, N. Y.:

DEAR MR. BJONES—I am enclosing you a sample of our new coupling-pin, which I am desirous of having adopted by the Pole-to-Pole Railway. Knowing of your connection with the railway in question, and having read of your extraordinary ability of fastening things upon those who are unwilling to have things fastened upon them, I am sending you the enclosed as a retainer for your services in having your road adopt this pattern of pin. The draft pins are made of the finest quality of Graft steel, while those which are intended for exerting a pull on the purchasing end are as you will notice, manufactured from eighteen karat Graft gold.

I will be pleased to see you at my hunting-lodge in the Arrowdondacks this evening, when we can discuss details. Very respectfully,

E. Z. GRAFT.

"There is more in this," said Carlock, "than appears on the surface. No man has ever had to offer me a bribe twice. Watchem, we must make haste ere the promoter of this useful device changes his mind. No man can make me such an alluring proposition and escape.

"Watchem," he hissed, "before the clocks strike the hour of midnight I shall have the signature of E. Z. Graft to one of my non-breakable contracts. Come, we lose time! But wait! I have an idea. Why should we consume time in going to the Arrowdondacks when it is in my power to summon our quarry to me by my marvelous telepathic powers?"

He rapped sharply upon the table two or three times, and then muffled himself up in the raps, which made him look like a mahatma doing the esoteric. I could see his massive mind working behind his impassive brow as he concentrated upon the task in hand. His power in that line

was marvelous. Often have I seen him wink ominously to the drug clerk.

His massive brows were knitting like a stocking-machine, while beads of perspiration stood upon his forehead ready for the stringing. Suddenly an automobile-horn sounded outside, and we heard the moan of an emergency-brake at Carlock's door.

"Hist!" he exclaimed. "It's he."

Expectantly, we waited. The silence was disquieting. Suddenly the elevator-doors clanged, and the indicator inside Carlock's door announced the fact that a portly gentleman weighing two hundred and seventy-six pounds stood upon the mat, outside the portal.

There was a knock. Carlock glided to the door and threw it open. The visitor entered, staggering, and would have fallen had not Carlock prevented him.

"Mr. Carlock Bjones?" he asked.

"That's me," replied Carlock. "You are in trouble. Really, my dear sir, you should get married; then you could tell your troubles to your wife without having to come to me."

The portly party paled. "How do you know all these things?" he asked.

"It is my business to know everything," replied Carlock. "I know you are not married, because nobody loves a fat man. I know you are in trouble, because you own an automobile, and I know that your chauffeur has left you because you used the emergency-brake in making a social stop. A chauffeur never uses a brake of any kind. He goes ahead and breaks the machine by running into something."

"Marvelous!" gasped the visitor. "As you know these things, perhaps you can tell me my name."

"E. Z. Graft," replied Carlock.

"You lose," said the portly party. "E. Z. Graft was arrested this morning for bribery."

"Then, who are you?" demanded Carlock.

"That," said he, "is another story."

TIE FARMS FOR THE PENNSYLVANIA.

To Plant Over Three Million Black Locust and Red Oak Trees for Future Road-Bed Construction.

SINCE it has become apparent that the timber supply is decreasing, and with it the supply of suitable timber for railroad ties, the large transportation companies are taking steps which will ensure available timber in the future.

The Pennsylvania Railroad Company is acting under the pressure of economic necessity, the growing scarcity of railroad ties and the increasing cost of those available having pointed the necessity of making provision for the future.

This great undertaking calling for professional skill of a high order, a very considerable outlay of land and capital and a patient waiting for results, is in line with other similar forestry experiments by railroads in the United States, but differs from all of them in its magnitude. It is contemplated to plant three and a-half million trees within a period of eight years.

Unlike some of the railroad "tie-wood plantations," those of the Pennsylvania are not confined to the cultivation of the quick-growing catalpa, but give preference to black locust and red oak. And the effort is not confined to the cultivation of suitable timber, but involves the study and eradication of insect enemies of different trees and the perfection of wood preservative processes.

Altogether the work is a complex and different one, but if it results in securing to the railroads a regular and adequate supply of the material it will probably justify the cost and trouble.

To keep popular with the back-shop men, keep out, keep out of the back shops.—Epigrams of the M. M.

Ten Thousand Miles by Rail.

BY GILSON WILLETS,
Special Traveling Correspondent of "The Railroad Man's Magazine."

WE are again down in Dixie-land with Mr. Willets. Through the medium of the yarns that he spins here, we encounter hairbreadth escapes from death with the Kuklux Klan and we meet other dangerous persons, including that band of marauders known as the Night Riders. Those outlaws seemed to hold a peculiar grudge against railroad men, and the stories that the boys have given our traveling correspondent indicate that many a Southern train-crew started out with its life in its hand. Mr. Willets has called these little stories dramas—and dramas they are in the truest sense of the word. Each one contains the elements of a stage play.

No. 2.—MORE DRAMAS OF DIXIE LAND.

The Hobo and the Ice-Water—Defying the Night Riders—The Tobacco War—One Man's Slaughter—K. K. Hanging Parties—Zach Martin's Story—The Stolen $50,000.

I HAD not been in Bristol, Tennessee, half an hour when a detective-story was literally thrust upon me. Nearly every railroad man I met on that Queen and Crescent trip seemed bent upon pouring into my ears a "special officer" story. Here's the one I heard at Bristol:

Detective Gene White, of the Southern Railway, was standing on the platform at the Bristol Station, waiting for the train for Washington. Seeing a man slouch past the station and down the tracks, White said to himself:

"It's Porter Wynn, the hobo. What's he up to now?"

White followed the man of the slouchy gait—followed him through the Bristol yards till finally he saw the hobo climb into an empty freight. White walked up to the door of the car and called:

"Come out of there!"

"You go away, and I'll come out," answered the man inside.

"No; I'll stay right here," White retorted.

"You will, will you?" called the man inside the car. And with that, he let fly at White—fired straight at the detective, who was standing within six feet of him.

White fell. The hobo ran for his life. White was found, seriously wounded, by Earl Smith, of Bristol.

White had once befriended Smith in an hour of need; and so, when the young man reached the station with his sorry burden, he said to the station-master:

"I saw the tramp who did this job, and I'll know him when I see him again. I mean to find him—you just watch me."

Next morning, Smith—dressed now as a hobo—took a train for Bluff City, Tennessee. He believed that the man who shot White would make his way down the track to Bluff City.

Series began in June Railroad Man's Magazine. Single copies, 10 cents.

Arriving at Bluff City, Smith went to the water-tank, sat down, and waited.

Surely enough, the tramp came slouching down the track. Seeing one who appeared to be of his own class, he accosted Smith, and the two engaged in conversation for more than half an hour, till finally the tramp said:

"Wonder where I can get a drink of water?"

"At the station," promptly replied Smith. "Come along. I'll show you the water-cooler."

They entered the station, and Smith led his prey to the cooler, and bade him drink. As the tramp lifted the cup to his mouth, Smith suddenly cried:

"Drop that, and throw up your hands, Porter Wynn!"

Wynn looked up to find that he was staring into the wrong end of a big gun.

"Sit down," ordered Smith.

In Custody.

Wynn sat, and his captor relieved him of his gun, and kept him covered till an east-bound freight came along, on which Smith convoyed his captive back to Bristol.

After turning his prisoner over to the authorities, Smith went to the hospital, where Detective White lay suffering.

Smith told him what he had done.

"You're a born special officer," groaned White. "The Southern Railway will need you—when you grow up."

The explanation of "when you grow up" is that the young man who disguised himself as a hobo and went down intuitively to the place where he believed the man who nearly killed his friend would appear was barely sixteen years of age.

Bristol railroad men assured me that the Southern Railway really intends to employ Earl Smith as a detective "when he grows up," and, as Earl Smith is now nearing the age of twenty-one, he hasn't much longer to wait for the promised job.

Defying the Night Riders.

At both Knoxville and Chattanooga, railroad men related stories of uncomfortable and even fatal experiences of train-crews with the famous raiders of the South—the Night Riders.

At Knoxville, Engineer Hawley, of the Southern Railway, told me of an experience of a friend of his—Engineer Buck Thorn—commonly called "Buckthorn"—with Night Riders at Russellville, Kentucky.

It was on a night in January. Buckthorn was pulling a Louisville and Nashville passenger-train slowly into Russellville, when suddenly he saw a big blaze rising from the middle of the town.

"It's the Night Riders!" he cried to

"DROP THAT, AND THROW UP YOUR HANDS!"

his fireman. "They're burning the tobacco warehouses here!"

"How do you know?" the fireman asked.

"Instinct," answered the engineer. "The town is asleep. Blow the whistle."

On the track ahead Buckthorn and his fireman beheld a band of men wearing black masks. Some carried rifles; others lanterns, which they waved as a command for Buckthorn to halt his train. Buckthorn brought his train to a stop, and, while the masked men swarmed around the engine, the leader cried:

"You, there—in the cab! You're Buckthorn, are you not?"

"Yes," came the answer.

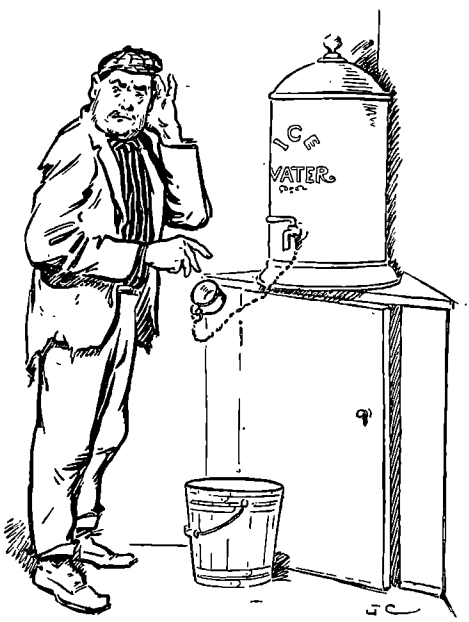
"Do you want to be alive to-morrow night this time?"

"I certainly do."

"Then, don't you blow that whistle or warn the town in any other way of what you see happening to the warehouses. You may proceed."

Buckthorn proceeded. But the moment the train entered the town limits he began, with daredevil courage, blowing the whistle.

One prolonged shriek—a screech of alarm that lasted during the time consumed by his train in passing through the town.



Past the station he flew, knowing that if he pulled down his life would not be worth a penny. If there were any passengers on the train who wanted to get off at Russellville, they were carried by.

The Torch Applied.

The shriek of that locomotive-whistle awoke the town. The citizens rushed to the rescue of the burning warehouses.

The L. and N. road foreman of engines advised Buckthorn, the next day, to lay off for at least two weeks, and stay in hiding. The engineer did so for two days, and then reported for duty.

"I'm going to make my run," he said, "and to the winds with the Riders!"

He and his fireman carried rifles, as well as revolvers, for a month after that, but they never had a chance to use them. Buck Thorn is alive and well to-day.

The Tobacco War Hero.

At Chattanooga, a trainman of the Southern Railway, James Riley, known on the line as "Little Jim," told me of the experience of two employees of the Louisville and Nashville during a raid of the Night Riders at Hopkinsville, Kentucky.

Peter Morgan was the watchman at the Hopkinsville depot. The hour was midnight; and, seemingly, the only person awake in the whole place was this same Peter Morgan. It was his duty to watch not only the passenger-station, but also the freight-house, where much tobacco was stored.

While Morgan paced up and down outside the passenger-depot, six men wearing black masks suddenly loomed up in front of him, seized him, and, before he could cry out an alarm, tied a piece of tobacco-bagging over his mouth. They threw him on the ground, and bound him hand and foot.

One of the men then sat down beside him with a shotgun across his knee. He did not speak a word.

Morgan knew that the Night Riders had come.

As if rising out of the earth, scores and scores of masked men appeared at the station, the helpless watchman estimating that they numbered at least two hundred. The station door was forced open, and they filed in.

Morgan was carried in and laid on the floor, while the Night Riders maintained absolute silence.

The leader appeared and parceled his men in squads, numbering from six to twenty. Then all filed out again. Only the bound watchman and his silent guard, with the shotgun across his knees, were left.

In the Mouth of Death.

Five minutes later the sky was illuminded by a mighty blaze. The tobacco-warehouses were afire. Morgan heard shots and the cries and curses of men and groans of women.

It happened that a train of cars loaded

with tobacco stood near the station. To this train some of the raiders applied a torch, and then went to help their comrades at the warehouses.

Silas Lyman, an L. and N. trainman who happened to be laying over in Hopkinsville that night, while making his way down to the station saw the raiders set fire to the train-load of tobacco. Lyman hid behind a tree till the torchmen ran off toward the town.

"By Jove!" exclaimed Lyman. "I think I can save that end car."

He dashed to the train, sprang in between the two last cars, and uncoupled them.

"She's loose," he told himself, "but how am I to move her? I need something I can use as a lever."

The Burning Train.

He thought a moment, and remembered a tool-box near by. Running to the box, he found that the section-men fortunately had left several tools lying on the ground, among them a crowbar used for moving rails.

Leyman seized this and ran back to the burning tobacco train.

To his joy he found that the flames had not yet reached the end car. Using the crowbar as a lever, he got the car into motion, when—*Ping! Ping!*

Lyman fell in his tracks wounded.

Thus Silas Lyman, L. and N. trainman, became one of the heroes of the tobacco war. At the time, he was not on duty. In the voluntary act of trying to save property entrusted to the railroad from which he derived his daily bread, he nearly lost his life.

He suffered for months from the almost fatal bullets. Without one warning word he had been shot down by members of the latter-day Kuklux Klan.

"Oh, yes, Tennessee and Kentucky are peaceful States these days," added the Chattanooga trainman. "And G'o'gia is sometimes just as peaceful—in another way. If you want to hear the G'o'gia end of the business from a railroad man's view-point, you go over to Chickamauga and see old Jake Wylie. He's a retired Gainesville Midland railroader, and he'll tell you all about the peaceful times in his State."

I acted on the trainman's tip.

One day in August, 1909, a train of the Gainesville Midland Railway began pulling away from its terminal at Monroe, Georgia, bound for Belmont, a run of thirty-two miles. The conductor, in passing through the Jim Crow car, overheard one of the passengers say:

"Ah ain't got no ticket, but Ah'm goin' to ride to Belmont just the same."

The conductor promptly pulled the signal-cord and, after a long argument, the train went on minus the negro.

Later in the day, that same negro appeared at a general store in Monroe and asked for some buck-shot. The absent-minded clerk gave him, instead, some bird-shot. That mistake probably saved the lives of a number of railroad men as well as the lives of over a score of citizens of Monroe.

The following morning, the manager of the Western Union office in the depot, Sam Stannard, came rushing into the office of Train Despatcher Joe Thompson, crying:

"D'ye hear those shots up street?"

"Yes. What's up? A war?"

"A railroad man has been shot. And —you've got *two* guns, haven't you, Joe? Give me one of 'em. You take the other. Now come along to the front."

The train despatcher and the telegraph man rushed up the main street, when suddenly Joe Thompson staggered and fell, peppered with bird-shot.

The report of a gun had come from somewhere in the arcade of the Bank of Monroe. Toward that place Sam Stannard started.

"Wait a moment, Stannard!" cried a man, running up and joining the telegrapher. "I'll go with you. It's that negro, 'Bully' Wade."

Like a Battle-Field.

The newcomer was Dr. Forsythe, the mayor of Monroe. He had hardly spoken the name, "Bully" Wade, when down he went, too, wounded in the leg.

Stannard now looked around bewildered. All over the street lay men, wounded as on a battle-field.

Stannard saw Steve Burke, one of the railroad telegraphers, running toward

him—when down went Burke with a wound in the head.

Then along came Roy Fisher, one of the call-boys of the G. M. R. R. He, too, fell before the negro's gun.

Joe Kendall, the trainmaster, next fell with a volley in his breast.

Ed Strong, cashier of the Southern Express Company, and Jack Marryman, the Southern Express agent at the depot, were the next victims.

Besides these railroad men, some twenty citizens of the town were laid low by the double-barreled shotgun in the hands of "Bully" Wade.

"Some one's got to kill that man!" said Stannard, with a glance at the prostrate forms of his friends and co-workers. "I guess it's up to me."

With that, he walked deliberately up to the enemy, but not while the enemy was reloading his gun—no, but just as the enemy pointed his gun at the telegraph man and pulled the trigger.

Bird-shot whistled all round Stannard, but still he advanced on the enemy till he looked straight into his eyes.

"Bully" Wade fired his last shot—at Stannard.

A second later the enemy was no more.

President Baldwin, at Savannah, and General Manager Eppes, and General Freight and Passenger Agent Veazey, at Athens, each received this message:

> Depot and yard force here nearly all out of commission as the result of a battle in which twenty-nine white men were wounded and one negro killed. Send twelve men and trained nurses.

"Who killed the enemy?" asked Train Despatcher Joe Thompson, some days later when Stannard visited him at his bedside.

"Don't know," replied Stannard. "The station-master, and the baggage-man, and the station-porter, and the yard-master, and two trainmen, and a conductor, and one or two engineers, and about three section-hands, and yours truly, all fired at the same time—I think."

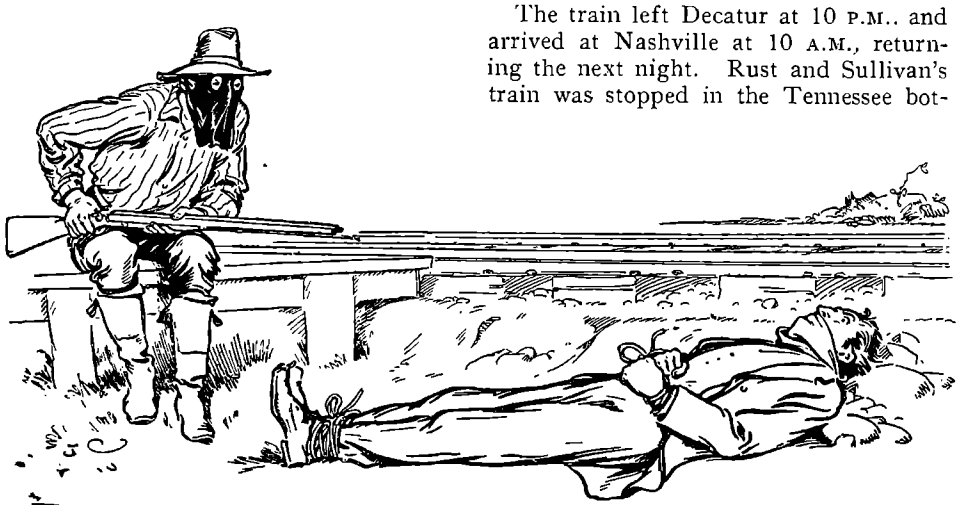
Kuklux Hanging Parties.

Engineer "Hen" Rust and Conductor Sullivan were in charge of a night passenger-train out of Decatur, Alabama, on the run through the Tennessee bottoms up to Nashville.

Their "command" consisted of three trainmen, who worked the hand-brakes whenever "Hen" Rust called for a stop. For some unaccountable reason, their train was extremely popular with certain citizens, who had the misfortune to be regarded as undesirable by the Kuklux Klan.

It was on the old Nashville and Decatur Railroad connecting at the Alabama town with the Southern Railway, and at the Tennessee town with the Tennessee Central.

The train left Decatur at 10 P.M., and arrived at Nashville at 10 A.M., returning the next night. Rust and Sullivan's train was stopped in the Tennessee bot-



ONE OF THE MEN SAT DOWN WITH A SHOTGUN ACROSS HIS KNEE.

toms somewhere about midnight, about every third night, by men shrouded in white-cotton sheets with slits for eye-holes. These white apparitions, Rust and Sullivan called the "ghosts of the rail."

The ghostly ones would stop the train by waving firebrands across the track. Then they would take one of the undesirables from the train, lead him off the right-of-way to the nearest cedar-tree, and order the train crew to come along and witness the proceedings.

After attending about a dozen of these nocturnal hanging parties, Rust and Sullivan and their crew were unanimous in agreeing that the thing had become monotonous, and that the next time the white-robed executioners appeared and ordered out the train-crew to witness a hanging, to a man, they would decline the invitation.

Meantime, Conductor Sullivan, in the opinion of the K. K.'s, had joined the undesirable class, Sullivan's crime being that he had told, with harrowing details, stories of the hangings he had witnessed, and, in particular, how he had seen three bodies swinging on one cedar.

Then came the night when Sullivan and Rust, and their three minions of the brake-wheels were to "strike" when ordered to come forward and watch a swinging.

It was some time after midnight—the usual time. The train was running through the Tennessee bottoms—the usual place. Once again Rust beheld the "ghosts of the rails" waving firebrands across his track. To avoid a fusillade of shots, he whistled for brakes.

The Meeting Called.

Immediately, the train was surrounded by K. K.'s. The engineer knew that some undesirable was being carried off the train. A voice beside his cab, said:

"Reckon you want to witness this yere meetin' out of justice, partner."

"No, I don't," answered Rust, not so much as turning his face to the speaker.

"Yes, you do, partner," insisted the man beside the cab. "You want to attend this meetin' mighty bad. Now you're a handsome cuss—and I'd like to take a look at your face. Turn round."

Rust swung round to find himself looking into the muzzle of a rifle.

"You're powerful interested in this meetin', partner," said the white-sheeted man behind the Winchester. "Get down and come right along."

"No," protested Rust. "I'll stay here. You don't need me. I'll take your word for the meeting. Me and my conductor and my crew don't want to attend no more meetings of yours. We are tired of them. We're staying on the train to-night."

"You're mistaken, partner. Your train-crew is on hand, all of 'em, especially your conductor. Come on now, or we'll take you anyway."

The upshot of this matter was that "Hen" Rust left his cab and proceeded in the company of the K. K's., to the usual spot chosen for the night's hanging.

And There Was Sullivan.

What was his amazement, when he arrived at the cedar-tree, to find that the central figure of the entertainment was none other than Conductor Sullivan.

There stood Sullivan surrounded by the sheeted K. K's. with a lariat around his neck, and his eyes staring upward along the lariat to where it was thrown over a stout limb.

"You're not goin' to swing Sullivan?" cried Rust. "What's *he* done?"

"He's been spraddlin' information around Decatur and Nashville," said one of the K. K.'s., "which is some ag'in the code of honor upon which we-all have from time to time duly invited him to attend these yere meetin's. But look here, Rust. What we-all is goin' to propose now, is to give this conductor just one more chance to live. He must promise and you must promise and your crew must promise that this Sullivan man will hereafter for all time go away from this region and never come back."

"Oh, is that all you want?" cried Rust gleefully. "All right! take that rope off Sullivan. We promise he'll never run again through these bottoms."

Sullivan was released. And the trainmen abandoned that run.

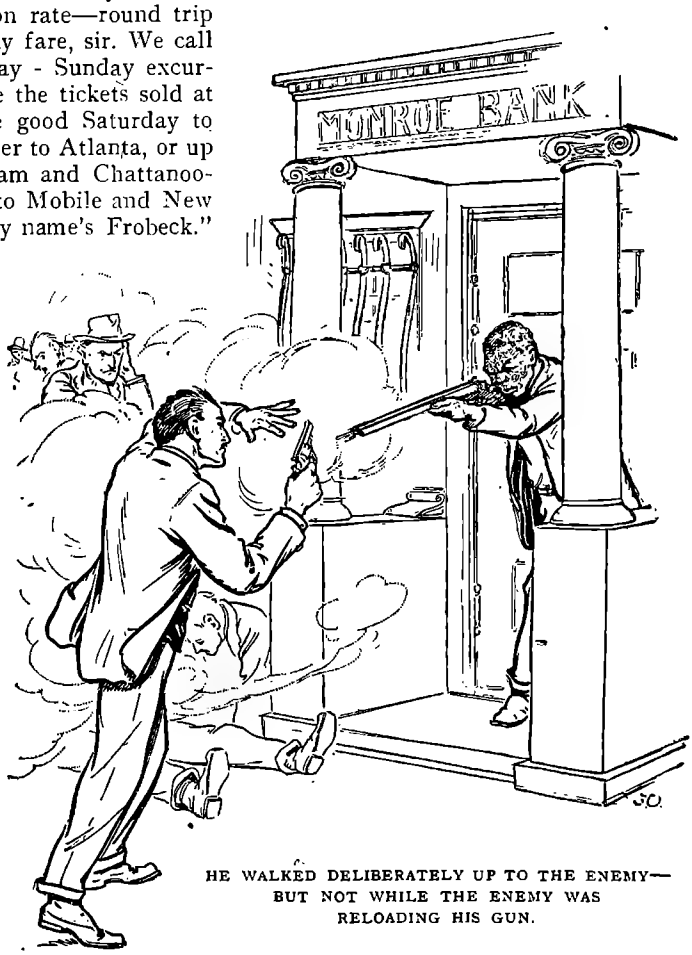
At the station at Montgomery, Alabama, I found a tremendous crowd of outgoing passengers.

"Is this a usual crowd?" I asked the conductor.

"It's a usual Saturday crowd, sir," he replied.

"But why Saturday?" I asked.

"Excursion rate—round trip for a one-way fare, sir. We call them Saturday - Sunday excursions because the tickets sold at that rate are good Saturday to Monday—over to Atlanta, or up to Birmingham and Chattanooga or down to Mobile and New Orleans. My name's Frobeck."



HE WALKED DELIBERATELY UP TO THE ENEMY—BUT NOT WHILE THE ENEMY WAS RELOADING HIS GUN.

Thus began an acquaintance which led to yarn-spinning on Frobeck's part, in the course of which he said:

Cats and Cats.

"Tell you what started these Saturday-Sunday excursions, sir. It was a cat."

"Cat?"

"Yes, sir. A dead cat. A cat about five feet long, sir. A catamount. Besides the cat, there was an engineer named Jack McWaters, and a conductor named Zach Martin, and a general manager named Cecil Gabbett. The three of them, plus the catamount, started the week-end excursions which are now so popular throughout the South.

"It was on the Atlanta and West Point Railroad," Frobeck continued. "The engineer and conductor whom I've just named were running a train up to Atlanta from Montgomery. At Gabbettville, when the train stopped, a man stepped up to McWaters and offered him a dead catamount which he himself had just killed—saying the engineer could have the carcass for two bits.

"Just for fun McWaters bought the cat and tied it by the tail to the bumper of his engine with the body spraddling down the pilot.

"At every station all the way to Atlanta crowds gathered round the engine

and asked McWaters no end of questions about the catamount.

"Now, hitched to the end of that train was the private car of the general manager, Cecil Gabbett. After five or six stations had been passed with crowds swarming around the engine at each place the G. M. called for the conductor, Zach Martin, to come to his car.

"The G. M. asked him what all the fuss was about. Zach told him about the catamount and then added:

"'There are lots of folks in these crowds who would like to spend Sunday in Atlanta. But they complain that the fare is too high. They can't afford it.'

"'Why not make a special Saturday-Sunday excursion rate?' suddenly exclaimed General Manager Gabbett.

"'Yes,' replied Martin. 'Take 'em up to Atlanta and back for the price of a one-way ticket—and you'll get 'em in droves.'

"And the thing was done," Conductor Frobeck said in conclusion.

The Southern Pacific.

From Espee men in Los Angeles, I gathered the facts of a remarkable case of railroad sleuthing that might be entitled: "A Railroad's Human Bloodhounds, or The Deep Dark Secret of Fifty Thousand Dollars."

A train over the new Brownsville railroad of the Texas Gulf Coast pulled into the Brownsville station. A minute later, Fireman Charles Beeler fell in a faint on the floor of the cab. Members of the train crew lifted the fireman out of the cab and laid him on the ground. Presently he regained consciousness and his first words were:

"I'm going to die, boys, because I've nothing more to live for."

To no one did he explain why he had "nothing more to live for," but all could see that Fireman Beeler was a very sick man, though not so far gone but that he felt he could stand the journey back to Houston—which he did. Soon after arriving at Houston, however, the railroad men lost all track of him.

What had become of Charley Beeler?

In a shack on the outskirts of Houston, a light appeared. Those living in the neighborhood had not seen a light in that shack for two years. In all that time it had been unoccupied.

Toward that light now, on the night in question, a man unknown to the neighborhood made his way stealthily till he reached the door of the shack. Then suddenly he shoved the door open, entered, and found a man lying on the floor.

"I want to talk to you, Beeler," said the visitor.

"I'm perfectly willing to talk," answered the man on the floor, in a weak voice.

RUST SWUNG AROUND TO FIND HIMSELF LOOKING INTO THE MUZZLE OF A RIFLE.

"You know me?" asked the newcomer.

"Yes. You're Anderson, one of the Espee's bloodhounds. I know that you and others have been watching me for five whole years. But the game's ended, cap. I'm all in. I crawled in here to die."

"Then I reckon you're ready now to tell where you hid that money."

"I am," replied Beeler. "I'll tell you the whole story, and when I've finished

you Espee bloodhounds will quit my trail and leave me to die in peace, 'cause you're goin' to believe my story."

Beeler related a tale as thrilling as a melodrama. It was, as nearly as the Espee men in New Orleans could remember, as follows:

One evening in the spring of 1907, the money-clerk of Wells, Fargo & Company, at San Antonio, Texas, left the office and went home to supper. At the finish of the meal the clerk's pretty wife, Anna, said:

"Charley, take me to the show tonight, will you?"

Charley said, "you bet!" After supper the wife dressed herself in her very best.

"But it isn't much of a gown, is it?" she said, then added that she wished she had at least one pretty frock such as one of those worn by the manager's wife—meaning the local manager of Wells Fargo.

Now Charley Beeler—for that was the clerk's name—loved his wife deeply, and wanted to please her.

That night she broached the very subject which, for a long time, had been one of Beeler's manias, namely, that such a fine-looking young woman should have fine clothes.

The Promise.

"Hang it all!" he exclaimed, "you shall have as fine a dress as any woman in San Antonio. I'll get it for you, somehow."

"How?" asked the wife.

"I'll earn it, of course."

"Good!" she exclaimed happily.

On the way to the theater, Charley Beeler was so absent-minded that he failed to hear remarks his wife addressed to him.

"What are you thinking about," she asked, "that you make me repeat everything I say before you answer?"

"I'm thinking of your new dress," Charley replied.

At the theater he bought two of the best seats, took his wife in, seated her, then suddenly said:

"I'll have to leave you alone a while. I must do an errand down at the Espee Station. I'll be back in time for the second act."

Next morning, railroad and express circles in San Antonio were agitated by the news that a package of money containing $50,000 shipped over the Southern Pacific in care of Wells, Fargo & Company, from New Orleans, had vanished from the car in which it arrived at the Espee Station at San Antonio.

During the morning, young Mrs. Beeler rushed into the Wells, Fargo office, crying:

"What has become of my husband? He left me at the theater last night saying he would return in time for the second act. But I have not seen him since!"

On the Hunt.

An Espee detective, Jack Williams, happened to be in the express office at the time, and overheard the lamentations of the money-clerk's pretty wife. Williams had already been assigned to run down that $50,000. Learning that Beeler had disappeared, the detective at once left the express office and proceeded to wire up and down the Espee line all the way out to El Paso and all the way down to New Orleans, warning all to look out for a young man with close-cropped hair, age twenty-four, tall, slim, black mustache, black eyes, good-looking and fairly well-educated.

Before nightfall, word came to Williams in San Antonio that Beeler had been seen in Uvalde, a town about halfway between San Antonio and Spofford. Straightway, some half a dozen officers in the employ of the Espee and Wells, Fargo, headed by Williams, rode "special" west to Uvalde.

There they found that Beeler had struck the trail into the trackless desert of South Texas, evidently bound for the Mexican border. Beeler had hired a wag-

"CHARLEY, TAKE ME TO THE SHOW, TO-NIGHT?

on in Uvalde, from his wife's brother—the only undertaker in town. This furnished the necessary clue.

Hiring ponies and taking a supply of provisions, the sleuths rode forth on Beeler's trail following the wagon-tracks.

Down toward the Rio Grande the trail led until they found the wagon abandoned, but no Beeler, and no fifty thousand. One of the horses had been abandoned, too, Beeler evidently having mounted the other.

Again southward the trail led till the sleuths lost it entirely. Then they spread out in a big semicircle, picked up the trail, advanced to the Rio Grande and across it and into Mexico.

Through the North Mexican wilderness, and over the Santa Rosa Mountains, the sleuths kept up the pursuit. Having plenty of money, they bought fresh ponies as soon as those they rode were worn out. They employed *rurales* (Mexican rural police) in the chase; and once when they struck a river they bought a boat outright, and then returned it to the seller, this in order to get quickly across.

After weeks of such work, suffering hardship, exposure, and starvation, Beeler was caught. He was found in a thicket in a region of Mexico where few white men had ever been. The fugitive was found fast asleep. While he still slept, the sleuths handcuffed him.

Without waiting for the formalities of extradition, Detective Williams and his comrades marched Beeler back to the Rio Grande, across into Texas, and up to San Antonio, where the young man confessed to having taken the money.

He refused, however, to tell where he had hidden it. He was sentenced to seven years on a Texas penal farm.

"My wife Anna!" Beeler cried, as he was led away to serve his sentence. "How is it I have not seen her?"

The sleuths had purposely kept the heart-broken wife away from Beeler. So now when the prisoner asked for her, for the hundredth time, Williams replied:

"Your wife is dead."

Beeler staggered, seemed on the verge of swooning when the detective added:

"And since she *is* dead the money won't be much good to you. You took the money in order to buy pretty dresses for her, didn't you? Well, she's beyond needing dresses now."

Out on the Penal Farm.

But the trick didn't work. Instead of weakening under this sweating process, the prisoner cried:

"You lie! She's alive! She's too young to die. I'll tell you nothing about the money!"

He went to the penal farm. About once a year regularly, for seven years,

either Williams or some other Espee or Wells Fargo detective would show up at the farm and endeavor to get Beeler to betray the hiding-place of the cash. But each time the detective was defeated.

In the last year of Beeler's term at the penal farm, an epidemic struck the camp and many of the convicts died. Each night the prisoners buried their own dead or prepared the bodies of departed comrades for shipment to relatives in various places.

One night, Beeler was put to work preparing a certain body for shipment to Uvalde, Texas, that being the dead convict's home. In one of the dead man's pockets, Beeler came across a little slip of paper and a small bit of lead pencil. Of a sudden, then, solely on impulse, Beeler wrote a few words addressed to the only undertaker at Uvalde—his wife's brother.

He slipped the paper into one of the dead convict's socks. To Beeler's joy, the corpse was carried out of the camp without inspection.

A few months later, Beeler was released. He hastened to San Antonio in search of his wife, only to find that she had left the city years before, saying that she was going to her brother at Uvalde.

Beeler journeyed on to Uvalde, but no one there knew of the whereabouts of his wife. To his further dismay, he found that the undertaker, his wife's brother, had disappeared one week after receiving the corpse of the convict from the penal farm.

In frantic haste, Beeler then started for the Uvalde Station of the Espee. The station was some distance from the town and, before he reached his destination, Beeler found that he was being followed. He even recognized his follower,—Detective Anderson, of the Espee.

Instead of going to the railroad station, Beeler went back to the town. Anderson was watching him closely.

After hiding for three days in a saloon, he succeeded, in the middle of the night, in getting away unobserved, as he supposed, by the relentless bloodhound.

Beeler hastened then to the railroad station, crawled underneath the building, dug into the earth with his bare hands, and finally uttered an agonized cry.

"Come out of there, Beeler," suddenly cried a voice. "What are you doing?"

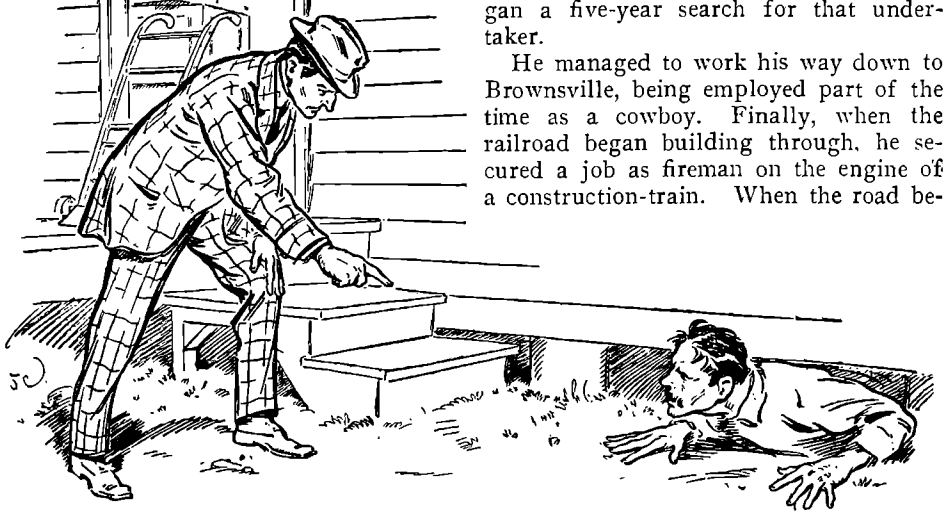
Beeler, panting and dripping with perspiration, came from under the station to confront the omnipresent Anderson.

"So that's where you hid the money, is it?" said the sleuth.

"No, it isn't," answered Beeler. "Look for yourself."

The next day Beeler learned that his brother-in-law had been seen down in the Brownsville region, and forthwith he began a five-year search for that undertaker.

He managed to work his way down to Brownsville, being employed part of the time as a cowboy. Finally, when the railroad began building through, he secured a job as fireman on the engine of a construction-train. When the road be-



"SO THAT'S WHERE YOU HID THE MONEY?"

gan running freight-trains, he was given a regular run as fireman.

Night and day he was on the lookout for his brother-in-law, and night and day he was watched by the railroad detectives until finally the day when he fainted in the cab, as described at the beginning of this story, and then traveled up to Houston and crawled to the empty shack, only to be confronted once more by Anderson.

"What did I write on that paper?" Beeler now said to the detective, in telling his story. "I wrote down the hiding-place of the fifty thousand dollars. I knew my brother-in-law, being the only undertaker in Uvalde, would find it when he prepared the body for burial.

"I wrote that if he would go to the hiding-place and get the money, he could keep twenty-five thousand dollars as his share in payment for holding the remaining half of the money safe for me until I came for it. But he made away with the whole fifty thousand dollars. And for five years I've been searching for him, meaning to kill him on sight."

"And the hiding-place?" the detective asked. "Where was it?"

"Under the depot at Uvalde, of course. You found me there at the moment I discovered that the money, as well as the undertaker had disappeared. You believe me, do you not?"

"I do, Beeler," said the detective. "And now I want you to believe me, too. Your wife is dead."

"Yes, I knew it," answered Beeler. "*That's* what made me faint in the cab of the locomotive. Just before I fainted I overheard some passengers talking at the station. I heard one of them say:

"'And Anna — Anna Beeler — she's gone, too—died of a broken heart."

"But, good-by, cap," added Beeler. "You'll leave me to die in peace?"

"Yes."

"And call off all the other detectives?"

"Yes."

As Anderson started to leave the shack, Beeler's eyes brightened, and he said:

"Say, cap, I've got just one happy thought. I keep thinking of that, just nothing but that all the time. It is—that I did it all for the woman I loved. Pretty soon, cap, I'll see her, and then—"

Anderson, the Espee's human bloodhound, had closed the shack door very softly on the dead.

In the August number, Mr. Willets will relate some exciting stories told to him by the boys of the G. A. R., south of the Potomac River.

THE FASTEST THING ON WHEELS.

THIS title now rightfully belongs to the automobile, we are told by a writer in *The Engineering Record*. Motor-driven vehicles of all kinds, including steam and electric locomotives, are now led in the race for speed-records by the rubber-tired car that has no rails at all to run on. Says the paper just named:

"It is casually worth noting that the automobile speed record, which has remained for four years at a rate of 127.6 miles per hour over the measured mile, has again been raised, this time by a gasoline automobile of 200 rated horse-power. The figure touched is 131.72 miles per hour, the measured mile being covered in 27.33 seconds.

"This puts the locomotive record of 120 miles per hour quite in the shade, and passes even the top speed obtained in the Zossen electric-locomotive tests of 1903. Thus the general speed-record passes into the hands of the automobile in spite of the fact that it does not have the advantage of a smooth track on which to run.

"The long-threatened increase in railway speeds to sensational figures is yet far from coming to pass, and the one hundred-mile-an-hour train, seriously projected nearly twenty years ago, is still in the dim distance. The stern chase of the automobile is likely to be, as usual, a long chase. These transcendental speeds are perhaps likely to be long in coming as a matter of common transportation, but every raising of the record ought to be a stimulus toward faster trains in those cases where speed really becomes of practical importance. The mechanical possibilities are still very far ahead of practise, and the fundamental question has become merely one of commercial desirability."

The automobile that made the record referred to by *The Engineering Record* was the "Lightning Benz," driven by Barney Oldfield, at Daytona, Florida, on March 16.

BOGLIP'S CANINE PARTY.

BY C. W. BEELS.

"Moral Suasion" Was All Right for Children, But It Would Not Go with a Bull Terrier.

SEPTIMUS BOGLIP was a salesman by profession and a humanitarian by instinct. The first of these necessitated his presence from 9 A.M. till 5 P.M. in a big New York wholesale store, the second resulted in the shaping of a portion of the domestic policy of his New Rochelle home on what he believed to be ideal lines.

Being a man of family, he had plenty of opportunities to put his pet theory into practise, which was, that under no circumstances should a child be made to feel the shingle, the slipper, or the rod.

"Moral suasion, sir, is the only thing that a youngster needs in the way of direction or discipline," Mr. Boglip would declare to the individual who wasn't of his way of thinking. "The man who lifts his hand against a child, brutalizes himself and the helpless victim of his barbarity, at one and the same time. Spare the rod, sir, and you spare the child the suffering and humiliation which you have no right to inflict upon it."

So, mounted on his hobby, he would follow a dozen different trails of argument, all of which led to the justification of his beliefs. Whether he succeeded in convincing his auditor was a matter of which he took little account, for, like a good many people of fixed opinions, Mr. Boglip had more desire to give tongue to the latter than to convert others to his way of thinking.

Now, it wasn't that Mrs. Boglip believed that the indiscriminate infliction of physical pain on her children did them good, but she did hold that a parent had the right to keep the rod as a sort of Court of Last Resort.

She also held that the knowledge of that fact on the part of the youngsters invested the father or mother with a respect that would otherwise be lacking.

Luckily, though, the quartette of Boglip children were, as a rule, mightily well-behaved, as children go, and the occasion was rare, indeed, when the ideas of Mr. and Mrs. Boglip came into collision in regard to punishment.

This was fortunate, perhaps, for Mr. Boglip, for he was a little man who had followed the marital instincts of most little men — he married a woman who weighed a third more than he did and who towered three inches above him.

Had Mrs. B. chosen to back her beliefs with her personality, there would have been no doubt as to the outcome.

But two things militated against her enforcing her methods with her muscles. The first was that, like most big people, she was good-nature personified; the second, the Boglip dog-kennel, which calls for explanation.

The Boglips were no exception to their neighbors in the matter of dogs. Nearly every resident for miles around had a kennel.

At one end of the lawn of the Boglip home was a strip of ground enclosed by wire netting. Inside were three kennels, in one of which lived Mrs. Boglip's fat and wheezy Irish water spaniel, while another was given over to an Airedale terrier with a rather malformed right ear.

This dog had been given to Boglip by a generous friend who bred the animals and had no use for those which were not physically perfect.

The third kennel was devoted to a couple of nondescripts, the special prop-

erty and delight of the Boglip children, who always called them "mutts." Like most dogs of mixed ancestors and no pedigree, they were jolly, alert, and intelligent, much more so, indeed, than their somewhat blooded confrères.

The space in front of and around the kennels was liberal, sanded, and formed a capital exercise and romping ground for the canines. Access was obtained by a gate in the wire fence, the key to the lock whereof being in the Boglip kitchen out of reach of the Boglip youngsters.

Now, there was one remarkable and peculiar connection between the Boglip children and the Boglip dogs. Mr. Boglip was not always logical in the observance of his set views on punishment. He began to find that the children—Ephraim, Elihu, Sarah, and Ruth, whom he had lovingly named for biblical persons—were growing more unmanageable with their years.

Like all youngsters they were in mischief from morning till night, and, when father came home in the evening, mother would tell him how they had nearly driven her mad, and father, in order to get even and uphold his theories so far as possible, took a whip, hiked to the kennels and "took it out on the dogs."

They yelped blue murder, while the Boglip four looked on in delight and inwardly praised their father's method of administering punishment to them. Mrs. Boglip called him a fool and criticized his behavior, and she warned him soundly never to touch Wally, the wheezy dog.

One evening Mr. Boglip reached his home in bad humor. On this particular day, everything had gone wrong. He had missed trains going and coming, and as most people should know, this, when it happens to a commuter, is looked upon as both misfortune and disgrace.

One of his biggest Western customers hadn't shown up as per promise, and another had bought much less than usual. Mr. Boglip had also smashed a couple of valuable samples, which were charged to his commission account.

He had been "called down" by one of his chiefs in regard to his alleged failure to push a line of American goods, and, to crown it all, when in a Subway car on his way to the Grand Central Depot, a large and aggressive lady of Gaelic extraction had spoken of him as a "half-boiled shrimp," just because he had accidentally trodden on her toes.

Mrs. Boglip, also, had had a trying day of it herself. What with the unheralded flitting of her colored help; a bedroom ceiling that, for no apparent cause whatever, had descended on clean tidies and spreads; a kitchen range which had sulked for hours and then became so furiously industrious that it reduced most of the dinner to cinders; neighbors who called at ungodly times, stayed unreasonably long, and said unkind things about people whom Mrs. Boglip liked; a dispute with the laundry over missing articles, and, lastly, the children.

The children dressed, their faces shiny with washing, were waiting in their playroom for the call to their returning pa. They were accustomed to have their supper after the grown-ups, and in the interval hatched schemes of mischief for the morrow.

Mr. Boglip entered his home with nasty, little flying pains playing over his forehead, betokening a neuralgic headache. His nerves were raw and his temper likewise, and, Mrs. Boglip as she placed the chops on the table, began to tell of the vagaries of the stove and the desertion of Jennie, the colored cook.

In his heart, Mr. Boglip felt rather glad for an outlet for his depression. Naturally, he didn't say so. He did remark, raspingly, something to the effect that if Mrs. Boglip was incapable of managing either a range or a servant, it would be cheaper for them to go boarding than to continue the farce of housekeeping.

He knew that his wife hated a boarding-house with a whole-souled hatred, and that, as a matter of fact, she was an excellent manager and housewife.

Mrs. Boglip paused in helping the chops, looked down—literally *down*—upon her small spouse, opened her mouth to speak, closed it again, and once more plunged her fork into the meat. She selected two of the best chops with elaborate care, matched each with the mealiest of potatoes and handed the plate to her husband without a word.

Mr. Boglip took the plate with a demonstration of contempt and martyrdom that didn't escape the notice or allay the

exasperation of Mrs. Boglip. But she continued to keep her lips closed. Mr. Boglip munched discontentedly for a few moments and then, after assuring himself that it wasn't on the table, demanded tomato sauce.

"There isn't any," said Mrs. Boglip, somewhat sharply. "I've already told you that it was only at the last moment that I found that the dinner which I had really cooked was spoiled, so I had to get the chops all of a hurry. Consequently, there wasn't time for tomato sauce or—or anything else."

Mr. Boglip noted with relish the lame termination of Mrs. Boglip's explanation and determined to rub it in. "Well," he began, "this finishes me. If you can't keep house better than—"

The sentence was never ended. Mrs. Boglip arose in her wrath and towering over the little man, wagged a compelling right hand at him.

"That will do, Septimus Boglip," she said. "I say that that will do. Don't you go talking about my housekeeping when those children of yours are making a laughing stock of you and me because of your fool ideas about their training. I give you fair warning, Septimus, that the next time the children need a whipping, they'll get it, and get it good from me!"

Mr. Boglip tried to interrupt, but failed, Mrs. Boglip silencing him with a gesture that seemed to imply that he simply wasn't to be heard from till she had had her say. So she went on:

"You are grumbling because for once in your life you've had to eat chops instead of roast chicken! Poor fellow, poor starved fellow, how my heart goes out to you! But as between unexpected chops and four children filled with the very old mischief—what?"

Mrs. Boglip jerked out the last word of her sentence with a force and suddenness that startled Mr. Boglip into swallowing quite a large lump of practically unchewed mutton, and he knew that he was in for an attack of indigestion. Again he tried to speak, but Mrs. Boglip prevented.

"The first thing this morning and just after you had left," continued the now thoroughly aroused wife, "Ephraim, while chasing Elihu through the front parlor, tripped and fell against that pretty vase you gave me on my birthday. I—I—wouldn't have had that broken for anything!"

Here Mrs. Boglip sniffed deliberately, and with feminine unreasonableness, arose, walked around the table, kissed her husband on the forehead, and ignoring his attempt to explain, excuse, or dissemble, returned to her place and continued:

"Next thing, three of them managed to get little Ruth into one of the apple-trees and wouldn't take her down. She was crying as if her heart would break, the pretty dear, when I went to her help.

"And in the meantime, Sarah and Ephraim had managed to stick leaves all over the cat with that library paste you brought home the other night, and the poor frightened creature, not knowing what it was doing, ran up the parlor curtains and then jumped clean from the pole to the mantelpiece, smashing the vase that Aunt Ellen gave us last Christmas as well as two of the—"

Mr. Boglip rose suddenly, gurgled violently and reseated himself suddenly as Mrs. Boglip eyed him sternly.

"As I was saying, the cat broke two crystal ornaments on the candelabra that you value so much because somebody belonging to you brought it from England—at least you say they did—though for the life of me, I can't see why that should make it any more valuable. I'm sure that any day in the week I can buy prettier and cheaper things at any of the big stores in New York."

Mr. Boglip held up his hand in feeble protest. While he managed to change the direction he didn't interfere with the strength of the current of his wife's eloquence. Like a good many other normally quiet souls, Mrs. Boglip, once aroused, was difficult to quell.

"Then," relentlessly continued the wife, "I had but barely cleaned up the mess and cleaned off the cat, when *bang! crash!* went something—in your den!"

Mr. Boglip dropped his knife and fork, and forgetful of chops or commands, snorted sepulchrally: "What was it?"

"Well," said Mrs. Boglip after a brief pause, "I almost hate to tell you. Not that I am afraid that you will punish the children, but for your own sake."

"Go on," replied Boglip resignedly. "I s'pose the cat didn't murder the canary or try to elope with—the chops."

"I said that the noise came from your den—not from the parlor or the ice-box," answered Mrs. Boglip coldly. "Anyhow, I ran up-stairs, and there I found—

"But you'll have another potato, won't you, Septimus?" she asked anxiously.

"Go on!" shouted Mr. Boglip, licking a pair of dry lips.

"Well," resumed Mrs. Boglip, sighing heavily, but not without certain enjoyment, "as I got near the head of the stairs, the children came out of your den giggling, Septimus, giggling, mind you. I asked them what they had been doing. 'Fishing,' explained Ephraim, 'smashing things,' added Sarah. 'Gee!' said Elihu, 'ain't it a good thing we ain't got a dad like Mr. Joplin?' If we had, we'd get it good and plenty to-night.' And then all three of them laughed uproariously."

Mr. Boglip moved uneasily in his chair. "Where was Ruth all this time?" he asked, in default of something better to say.

"I'll come to that presently," said Mrs. Boglip. "Well, I went into your den and of all the messes. Your 'moral suasion' dear, hadn't stopped your children from fishing in the aquarium!"

Mr. Boglip jumped with surprise and horror. The aquarium with its swimming and crawling tenants was another of his hobbies. And the children had been taught to hold it as a sacred thing.

"Yes," resumed Mrs. Boglip with unction, "they had bent pins into fishing-hooks, had gotten thread out of my work basket and were using fish-food for bait. No wonder that the poor things—the fish I mean—had bitten freely and were—"

"What?" shouted Mr. Boglip.

"As I entered the room," replied Mrs. Boglip, "Ruth—Ruth, mind you—was holding that double-tailed goldfish that you were so proud of, trying to pull a bent pin out of his jaw.

"But that was nothing to the rest of what I saw. On the carpet were lying nearly every fish that had lived in the aquarium. It's astonishing the number of scales that'll come off one little fish and how those scales will spread and stick. It took me over an hour to—"

"Well, that's all right," broke in Mr. Boglip testily, "get back to Ruth and all the rest of it."

"As I learned later, after all the fish had been caught, some one of *your* hopefuls—"

"*Ours*," remarked Mr. Boglip.

"*Yours*," repeated Mrs. Boglip. "*Your* hopefuls thought that it would be a good thing to clear out the aquarium. They tried to lift it off the stand onto the floor. One side is smashed to atoms and the carpet of your den will have to be cleaned, and I'm much afraid that the dear little snails and lizards and pollywogs—that is as many of them as I can find—will never be themselves again."

Mr. Boglip groaned.

"But that isn't it," resumed Mrs. Boglip. "When the aquarium tilted, a good deal of the water in it hit your bookcase, and that old stamp-album of yours is soaked through and through and—"

Mr. Boglip was on his feet. The stamp-album was a much treasured relic of his boyhood.

"Send the children to me at once, Martha," he said. A gleam of hope shot over Mrs. Boglip's face at the tone and expression of her little husband.

"Are you going to punish them as they deserve?" she asked suggestively.

The query was well-meant but ill-timed. It served to remind Mr. Boglip of his theories of discipline.

"Never mind calling them down," he said, after a moment of hesitation. "I'll go up to them."

"Finish your dinner first, dear," coaxed Mrs. Boglip.

Mr. Boglip shook his head gloomily. "I've no more appetite—and I don't think the children will have any when I get through with them." With this he ascended to the play-room.

Mrs. Boglip sank in a chair. She was after all somewhat sorry for what she had started. She hoped that Boglip wouldn't chastise them too much. She hoped that he would keep his temper. They were only children, and he was a child once—and—

Mrs. Boglip heard issuing from the end of the garden an agonized and wheezy yelp. She recognized the cry of Wally. This was followed by a series

of assorted and spasmodic "*ki yis!*" and she knew that once more Mr. Boglip was visiting upon the dogs vicarious vengeance bred of the misdeeds of his children.

She hastened to the scene of trouble, determined that, anyhow, Wally should receive protection.

The conversation which ensued between husband and wife was decidedly more to the point than usual. Mr. Boglip had been wrought up to sheer exasperation. Mrs. Boglip's trials of the day were crowned by the howls of Wally. A conflagration of tempers was inevitable.

Mrs. Boglip accused her husband of cowardly treatment of a "poor, dumb, unresisting creature." Mr. Boglip declared that Wally had snapped at him when he entered the enclosure. Mrs. Boglip didn't believe it. Mr. Boglip averred that he was speaking the truth and that he had kicked the spaniel in self-defense.

Mrs. Boglip wanted to know why he had gone to the kennel in the first place. Mr. Boglip responded that he had a perfect right to go where he wished in his own house and in the domains attached thereto, or words to that effect.

"But not to kick my dog!" insisted the lady.

"Yes, ma'am, to kick your dog or anybody else's dog who snaps at me!" retorted Mr. Boglip.

Mrs. Boglip eyed her small spouse for a moment in silence. Then she spoke consolingly to Wally, turned on her heel and walked toward the house.

Ten minutes later, Mr. Boglip's bad temper was somewhat evaporated. He entered the unlighted parlor, found his wife meditatively contemplating the moon through a cluster of tree-tops, the children having gone to bed.

A week elapsed since the events just recorded. The children had been behaving well and the dogs had not been visited by Boglip save in kindness. But returning to New Rochelle one evening, Mr. Boglip was greeted by his wife with tales of ill-doing on the part of the kiddies, to which was added the statement, made with earnest emphasis, that if he failed to do his duty toward them by administering the corporal punishment to which they were clearly entitled, the wife herself would set the birch a swinging.

By an unlucky coincidence, and, as before, Mr. Boglip, on this particular day, had undergone a great many things which had led to his discomfort. He was snappy and cross. He replied that Mrs. Boglip didn't know what she was talking about, and that he proposed to treat and train his children as he pleased; and what was more, he would do as he liked when he liked and where he liked around his own home! With this and a final glare at Mrs. Boglip, he stamped upstairs to where the small culprits were awaiting him.

Mrs. Boglip waited for a moment and then slipped quietly out of the room. She returned in about ten minutes, with something akin to a grim smile on her face. Above, she could still hear her little hubby lecturing his recalcitrant flock, his remarks being occasionally punctuated by a shrill protest or explanation.

Finally the talk ceased, the door opened and the youngsters descended to supper.

A little later, Mrs. Boglip heard her husband come down into the hall, rattle quietly among the sticks in the umbrella-stand, retreat into the kitchen, return and open the door which led into the garden. Then she went to the kitchen and found the key to the kennel gone. Again she smiled as grimly.

Mr. Boglip, as he made his way to the dogs through the fast falling dusk was fuming furiously. If there is one thing more than another which breeds bad temper, it is a growing conviction that one's most cherished ideals are wrong. It really did seem to Mr. Boglip as if "moral suasion" was a flat failure so far as his children were concerned. Angry with them, with himself, with Mrs. Boglip, with everybody and everything, suffering from the unreasonable irritation which arises from frayed nerves, he, as he neared the kennels, felt his gorge rise at the thought of the fat and bronchial Wally. He determined that he would wallop the brute with wholehearted joy, in spite of his wife and the whole world!

So he turned the key in the lock and entered.

The impressions made on Mr. Boglip's mentality by the immediate subsequent events are to this day of a some-

what blurred and confused nature. Violating the usual rule, neither Wally, the Airedale, nor the mutts were visible.

Shining eyes from the depths of the kennels told of the animals being at home, but of their disinclination to receive visitors on the outside.

Mr. Boglip had scarcely time to think over the queer behavior of the dogs when something big, squatty, black, emerged from the farther corner of the enclosure and growled gutturally as it swaggered toward him.

Notwithstanding the dark, Mr. Boglip, with a sensation as if his internal organs had suddenly quitted him, saw that he was facing an able-bodied bulldog whose voice and attitude told that it was contemplating mischief.

Naturally, Mr. Boglip's first impulse was to back for the door. Unfortunately for him, it closed outward with a snap-spring arrangement. Before he could open it, the dog hurled itself at him like a small cyclone. Mr. Boglip, by a bit of as neat footwork as was ever seen outside of a sixteen-foot ring, avoided the onset and put one of the kennels between him and his assailant.

But like a flash, the dog turned and pursued the fleeing legs of the little man. Mr. Boglip spun around to the other side of the kennel just in time to preserve the integrity of his calves. Then he had to reverse the motion as the dog made a counter attack.

Twice or thrice was this repeated, and then the creature halted, growled angrily and tried to jump across the kennel-roof. Mr. Boglip, scared and perspiring, felt grateful that the quarters of Wally were tall and had a sloping roof which prevented the paws of the bulldog from getting a hold.

An inspiration seized on Mr. Boglip and he yelled to the dogs in the kennels for help. The reply thereto was a chorus of barks which could be translated into apologetic mockery and even glee.

So it seemed to the beleagured one, and the memory of the undeserved floggings which he had given the animals came back to him with painful forcefulness.

Next, Mr. Boglip howled aloud for his wife. But she answered not. Again and again he sent out shrieks for assistance, the bulldog muttering an accompaniment of canine profanity and ever and anon dashing around the kennel in the direction of the Boglip legs.

Then he yelled for the children, the neighbors, for anybody to come to his help. And his appeals, loud-voiced and pathetic as they were, proved to be fruitless.

In the midst of his terror, Mr. Boglip couldn't but help thinking that it was very queer that nobody seemed to take heed to his frantic calls for aid, especially as the houses were not so distant from each other and some people or other were usually around after business hours.

In the meantime the bulldog was giving evidence of growing impatient. His growls grew more blood-curdling and his actions more alarming. He developed a nasty way of sidling around toward Mr. Boglip and then making a short swift dash that called for a tremendous amount of agility on the part of the gentleman in question so that his person might be preserved intact.

Even as he thus escaped, the dog would grind his teeth angrily and remark as to what would happen when he got a good hold of the Boglip calves.

Mr. Boglip thought that it would be a good thing to try something akin to "moral suasion" on the dog. So he began:

"Good bow-wow! Nicey bow-wow. Fine dog—"

"G-r-r-r-r-r-r!" said the bulldog from the other side of the kennel.

"Oh!" replied Mr. Boglip in all sincerity, "certainly if you think so. All the same, I think you are a remarkably well-developed specimen of your kind. And I do hope that—"

Here Mr. Boglip's blarney was cut short. The dog made a brilliant attempt to get at him via the kennel-roof. That it failed was another matter. But its effort gave Mr. Boglip an idea which he proceeded to put into effect.

The top of the enclosure was a stout sort of railing. The space between this railing and the top of Wally's kennel was some three feet. Mr. Boglip, when the dashes of the bulldog permitted, had taken cognizance of these facts, and had come to the conclusion that if he could once gain the kennel-roof he would have

no difficulty in jumping to the railing and then to the ground.

Outside of the enclosure he would be safe. Even as he cast about for the means and moment for his attempt to gain his freedom, he thought with gloating of the revenge that he would have on the creature who had caused him so much terror and loss of perspiration.

To stand on the other side of the wire fence armed with a sufficient whip and—'twould be an act of justice at which even his wife could not take exception.

At this instant the bulldog, tired of merely growling, made a vicious rush at Mr. Boglip. The little man, using both hands and feet, vaulted upward and, to his delight and amazement, found himself on the kennel-roof. Poising himself, he hopped over the intervening space between himself and the railing, and, the next instant, found himself on the lawn. The feat was the occasion for a volley of growls from the bulldog and a chorus of barks from the other animals.

Mr. Boglip halted not, but made for the house, determined that he would take his revenge while it was hot and handy In his late encounter he had dropped the stick which he had taken with him to the kennels, but he had, in reserve, a big dog-whip—a cruel, business-like affair—that could be felt through the thickest hide. And when he had this in his hand he—

A sort of triumphant "yap" caused him to pause and look back. To his horror he saw the bulldog in the act of clearing the fence.

There was only one thing to be done under the circumstances and Mr. Boglip did it. He fled for the shelter of the house, the dog in hot pursuit. The kitchen-door was of the swinging order and opened inward. To it Mr. Boglip dashed, beating the animal by a scant yard or so.

Once inside, Mr. Boglip stayed not on the order of his going but got. Out of the kitchen into the hallway, from thence into the sitting-room and back into the hall, up-stairs and down-stairs, diving into the cellar and emerging via the garden, back into the house again—shouting and cursing, while the dog jumped at him, bumping into him, all the while growling and snarling.

As he ran, Mr. Boglip ceased not his appeals to Mrs. Boglip or somebody to come to his aid. Every leap of the dog was followed by a yell from the pursued one.

Mr. Boglip had gone the circuit of the house twice and was making a final dash up-stairs. Sore and winded, he had just reached the top landing when his foot slipped and down he rolled.

The dog was upon him. It fastened its teeth in the tails of Boglip's coat, and it held on as only a bulldog can.

There he was, sprawled on the floor, his canine adversary right beside him with its jaws set and determined on the nether part of his garment.

"Help! Help! Oh, help!" he yelled. "Come quick! For Heaven's sake! He's killing me!" And these words were followed by one of those indescribable yelps that only the truly frightened can utter.

A door opened at the head of the stairs. Mrs. Boglip appeared calm and cool, the four children gathering around her. They stood on the landing and looked down at their unfortunate master.

"Come here, Towser. Come here. Good doggie," said Mrs. Boglip in the kindest, sweetest voice. Immediately the bulldog released Boglip's coat, and whining and wagging his tail ambled up-stairs and curled in a heap at Mrs. Boglip's feet, the allegory of complete docility.

"I guess that will teach you a lesson, Septimus," said the wife. "Perhaps you know enough now to keep your hands off the dogs."

If Septimus Boglip had learned a lesson nobody could have decided at that moment. He simply looked as if he had lost all power to ever speak again.

A passenger train makes the most splurge, but the freight brings the money. Keep on plodding.—Trifles from the Traffic-Manager.

HELP FOR MEN WHO HELP THEMSELVES—NUMBER 33.

(The Rogers Group. No. 4.)

THE MASTER MECHANIC.

BY ROBERT H. ROGERS.

THE annual convention of the American Railway Master Mechanics' Association will be held in Atlantic City, New Jersey, June 15-22. It is undoubtedly the most important gathering of the year to the entire mechanical department of the railroad world. None but master mechanics in active service are eligible to sit in the councils of this body, and each of the seven hundred-odd members who will attend will represent motive-power ideas prevailing over thousands of miles of track.

In view of the fact that these conferences make railroad history, a discussion of some of the problems which are sure to be brought up for consideration at the meeting is not untimely, and is apt to prove entertaining to those whose interest is with the trials and tribulations of the "captains of the rolling-stock." Mr. Rogers deals with these problems in his article.

What It Means To Be the "Boss of the Bosses." It Is Difficult for Him to Earn His Title, and When He Does, His Life Is Beset with Worries of a Superior Brand.

THE position of division master mechanic is hard to secure, because it is largely a survival of the fittest. It goes without saying that he who can write "M. M." after his name, must have been a machinist above the ordinary, or the quality of his work would never have attracted enough attention to have raised him to even a gang boss, and, certainly, he must have been a little better than the other gang leaders when the powers that be elevated him to foreman, or roundhouse foreman.

Without some distinguishing feats of his own while in this latter capacity, to single him out from a dozen other competent foremen, he could never become a general foreman, for only the best of these, with the additional proviso that things break somewhere near right, may at last achieve the enviable grade in the service wherein the distinction may be enjoyed of "bossing bosses."

This is the plane occupied by the master mechanic, or, as time-honored shop vernacular must always have it, the "old man."

The mere fact, however, of being skilled in the trade is far from being the

only reason for advancement. Because a man is a good foreman or even a good roundhouse foreman, which latter may be likened to a veritable oasis in the field of talent, does not imply the certainty that he will shine as a master mechanic.

While it is true that every foreman has his troubles in plenty, and not disputing that he handles them in a way from which it might well be inferred that he could handle anything, they are nevertheless not the troubles which associate with the head of things. They are composed largely of minor details which often carry with them a great deal of vexation and worry.

It is not hard to find a man in the business who can handle a myriad of nerve-destroying trivialities, but the same man will often fall down utterly, while contending with only one or two of the graver problems.

The true gage of promotion is whether or not a foreman can advance sufficiently beyond the limitations of his own field, which, although big as it may be to him, is, after all, only a unit in the organization, to assume with equal interest and charity, the role of guiding spirit to each of the many departments which compose the large terminal shops.

Training a Master Mechanic.

There are probably one thousand master mechanics in active railroad service in this country, and ninety per cent of them, at least, have come up from the ranks of the hammer, chisel, and monkey wrench. There are other foremanships in plenty from which they might have graduated, but the school of the machinist seems to stand the test of time. The writer can recall very few instances where representatives of other occupations have been chosen. Only two boiler-maker foremen, and about a dozen road foremen of engines, have made good as master mechanics, but this proportion of the total is so small as to be scarcely worthy of mention.

Some few roads have essayed the experiment of training bright young men, through special apprenticeship courses, to enter directly into these positions, but the results have been disappointing. The shop men over whom these made-to-order master mechanics may be placed, quickly become aware of the fact that their superiors never actually worked for a living with the time-honored tools of the trade; and furthermore it is evident to them in many cases that they cannot hold on without special advice and assistance, which is never noticed in connection with the master mechanic who came up through the established routine.

For instance, it may be necessary to have an assistant master mechanic, and one or two other supernumeraries, who really carry their chief on their backs, and the men know it. It is needless to add that nothing so effectually destroys the prestige of the big boss as for it to be known that he is not resourceful.

Daily Routine.

The duties of a master mechanic vary on different railroads in minor details, but primarily they call for the adequate maintenance of all rolling stock entrusted to his care in order to insure the satisfactory handling of the traffic, and the exercise of the greatest economy consistent with the results desired.

It is necessary that he surround himself with capable heads of departments, and that he should see that these heads have men capable of filling their positions in case of emergency. His daily conference with the general foreman, and others whose presence may be necessary, maps out the work to be followed, and daily reports from, or preferably visits to, his outlying terminals enable him to keep in touch with the various conditions and to adjust any irregularities.

As the master mechanic stands at the head of all mechanical matters on his division, which is often two hundred miles long, with large main shops, many outlying points, and probably three hundred or more locomotives, he must of a necessity be practical, and broadly informed in the business.

He is obliged to render momentous decisions on points raised by foremen representing two dozen trades or occupations every day, even if there is a general foreman, boss blacksmith, foreman boiler-maker, or what not, who are charged with the direct supervision.

No matter how efficient a shop organ-

ization may be, questions are arising all the time in the shops, involving costs, and the best way to minimize the expense. In this connection he is considered an authority on the best practises in running and firing locomotives. These matters find their way eventually to the head of the plant as the court of last resort, and it would be difficult to preside in that capacity and retain the respect of this formidable body of practical men, each a master of his own work, unless there was behind the incumbent a tremendous reserve fund of experience, gained slowly and even painfully, through many years in the ranks, or in subordinate supervising capacities.

A Census of Worries.

Once in a while you will find a master mechanic who will tell you that the conditions which he has to meet are impossible, and he will firmly believe it, too, notwithstanding its evident fallacy, manifested by the fact that he does not hold the only such position in the country, and that there are other men who are getting along while combating the same problems.

The conditions are not impossible, although in a few places they may be unequal. If they were impossible the annals of the job would record a series of personal failures to make good such as have never characterized any business. The fact is, whether unequal or not, some men have their positions all their lives, through properly interpreting its requirements, and not looking for trouble until it comes to them.

On different occasions during the past few years the writer has asked ten master mechanics, with whom he was well acquainted, and who represented as many sections of the country, practically the same question:

"What feature in the duties of your position gives you the most concern; that is, what do you find to be your greatest source of trouble?"

The replies were interesting, although curiously divergent. Two said: "To get material to keep the engines going;" one, "To keep within the monthly appropriation, and hold down the costs," and another, "In keeping the men satisfied." Four answered: "The engine failures, and what is coming to you after they happen;" another, "To suit the superintendent," and the tenth, "To keep my job."

The question was put at random, and the replies are quoted exactly as given. They embrace the entire category of what may be called the tribulations of a master mechanic; the features, in fact, which are hardest to combat, and of which any one is likely to have a vital bearing on the tenure of his job. There is no need to look further, and in the tact, ability and caliber of the man in general to meet these issues squarely lies his chances for holding on to the position which has cost the best years of his working life to attain.

If these sources of trouble were arranged in their proper order of importance they would read: first, keep the men satisfied; second, hold down the engine failures; third, suit the superintendent; fourth, watch the monthly appropriation and the supply of material; and fifth, watch the job.

This is a more clever arrangement than it looks, although it may not be considered consistent with a divisional organization, in that the superintendent is placed third on the list; but a moment's reflection will make it apparent that in keeping the men satisfied and fighting the engine failures, the master mechanic has already endeared himself to the superintendent.

The reason why the most important personal consideration, "watching the job," is placed last, is because measurable success in the first four should insure the last.

Getting Along With the Men.

A brief consideration of the five troublesome items enumerated may serve to convey a better understanding regarding the human side of the master mechanic's work, than much detail description of the actual handling of the shops. This latter is largely routine work, well looked after by competent foremen, and the results promptly tabulated for ready reference by clerks in each department.

It merely remains to glance at the summary once in a while to estimate whether

affairs in general are moving for the good or bad, but the handling of these other matters which the various master mechanics assigned as trouble-makers are a personal duty, and cannot be entrusted to any one.

Keeping the men satisfied should not properly belong in the list of master mechanics' troubles; on the other hand, it should be among the few rewards pertaining to an office which has far more thorns than roses. It is no doubt the all-potent factor in the success of any master mechanic; and it lies simply in two words —"be fair," but more strongly than these in "treat them all alike."

The time has passed long ago when the master mechanic could stand on the edge of the turntable pit and literally "cuss" the engines in and out of the house. They will arrive and depart quicker, and his mechanical delay-sheet will present a much better average, if every man's little weakness is understood and deferred to so far as consistent with the maintenance of the proper discipline.

An Exponent of Civility.

Andrew J. Cromwell, for thirty years master mechanic on the Baltimore and Ohio, and for a lengthy period previous to his death its superintendent of motive power, was the exponent of civility on the part of boss to workman.

Even when in his last-named position he never failed to say good morning to an ashpit man, or any other laborer he might meet on his way to the office, and if in walking through the shops he saw an apprentice with his lathe loafing on the slowest speed, he would merely say, "Don't you think you could make better time, Joe, by throwing that belt up a speed?" This he thought preferable to the time-honored form: "Here! boy! sling that belt up! If you were driving snails, one would get away from you." Whether it was any better or not, it made the boy feel better because his opinion had been consulted by the master mechanic, and he ran his lathe up to the normal speed from that time on.

"It is merely in the study of human nature," said Andy, on one public occasion, "where lies the secret of the much exploited and very much overdone 'he has the knack of handling men.' Some of you may say that you can't jolly all men along, but that is not what I mean. You can treat them all alike to the best of your ability, take an interest in their affairs, whether assumed or real, and when you have become endeared to them there will never be a grievance which you cannot settle in your own little office. I lay great stress on gaining the good will of the men, as it is half of the battle."

Unconscious Good-Fellowship.

Once D. R. Killinger, who is now master mechanic on the New Haven road somewhere, while on a brief visit to South Boston, gained the good will of the largest body of railroad men in the quickest time on record, and without any premeditated move in that direction.

He had some forty or fifty engines which were taken care of at that point, although it was located on another division than his own, and being rather new on the road had their numbers typewritten in his own office, which list he pasted in the crown of his hat for ready reference before starting out.

While wandering through South Boston's grand maze of some hundred locomotives which put up there every dinner hour, it became necessary for him to look within his hat every time he passed an engine in order that it might be identified from the list as one of his own or otherwise.

This continuous hat-tipping was viewed with much complacence by the engineers, firemen, machinists, boilermakers, and wipers, who were loud in their praise of Mr. Killinger's supposed polite salutations as he made his way among them. For that matter Dave was naturally polite enough in those days to give each one a bona fide salute, but these are the facts, even if the telling has been some delayed.

Engine Troubles.

There is little humor in the second tribulation, the problem of engine failures. So much has been said and so much written on this bugbear that anything else could scarcely fail in superfluity, but, in brief, an engine failure means something which goes wrong with the

engine after being delivered by the roundhouse, and which may result in time being lost while on the road.

Engines are carefully watched by the train despatcher while with their trains, and he can tell from his sheet as they are reported by the various offices whether they are holding the schedule.

If not he will wire the conductor of the train asking the cause, although in all probability the conductor will be first on the wire advising him. These mishaps are tabulated in the superintendent's office every day on a form which the Erie calls " 1372," and the B. and O., " 1004."

It makes no difference what they are called after copies have reached the general superintendent and the superintendent of motive power. They are synonymous with " please explain," " can you tell us why," etc., and all the attending evils, the bulk of which will fall on the master mechanic in the handling of an amount of correspondence which would be staggering to a layman.

Each and every engine failure must either be explained, no matter how trivial, and it requires a cool, well-balanced head to interrogate the engineer and to subsequently present the explanation on an acceptable basis to the superintendent of motive power, who, as a rule, is equally well versed, if not sharper, than the master mechanic.

Making Explanations.

Some of these problems are knotty in the extreme. For instance, two minutes are lost on a certain important run, on account of what the engineer and conductor report as " low steam." If the master mechanic should say in his explanation that it was " up to the fireman," they would probably tell him to relieve the fireman, or question his judgment in using an incompetent man.

If he should say that the blower pipe " tipped over," or the " exhaust base leaked," he is called upon to explain why he despatched the engine in a condition allowing such things to be possible, especially in view of the fact that everything is inspected daily, and the inspection made a matter of record.

If he should claim that the engineer was incompetent, or at least did not take proper advantages of opportunities on the run in question, and discipline the runner in accordance with his ideas concerning the gravity of the offense, the engineer would probably point to his twenty or twenty-five years' successful record, and no doubt send his grievance committee after the master mechanic.

Should the latter, on the other hand, and for the sake of peace, fall back on the time-honored and time-worn " bad coal," to explain the two minutes, the superintendent of motive power, if he was on the job, and he generally is, would likely come back, asking the master mechanic to state definitely wherein the coal was bad; in other words, how much slate, sulfur, bone, ash, and other non-combustible substances figured in its composition.

The Safe Middle Course.

Explanations of engine failures truly place a man between Scylla and Charybdis, because the middle ground is restricted to a degree, and once or twice worked over, there is no more to it. Some of the explanations which desperation evolves would make a dead man turn over in his grave, to wit:

" This crosshead failed due to an old concealed defect which could not be detected in an ordinary roundhouse inspection;" another, " Owing to a high northwest wind which prevailed while the engine was being sanded, some particles were blown into the truck box, resulting in delay on the road of ten minutes from box heating;" and still another, " Pipe to auxilliary reservoir failed, causing delay of twenty-seven minutes while engineer made temporary repairs. This failure was due to pipe being short-threaded, and was a builder's defect of a concealed nature. This part had never been repaired or removed since the engine was received here."

Going Into Details.

A great many of these explanations are soundly based, but many are not so. To handle the matter intelligently an observant man will make each case an object lesson, and strengthen his organization to insure, if possible against a recurrence.

Sometimes letters will come back stating that the coal is as good as used on any other railroad for locomotives, costs just as much per ton, and that consequently in the future bad coal would no longer be accepted as an excuse.

This does not alter the fact, however, that very often the coal is bad, in the broadest acceptance of the term, and in such a case the best thing for the master mechanic to do would be to read up thoroughly on the subject of fuel, and prove his contention, if he can.

Along the lines of the coal problem, one of a master mechanic's trials, and certainly not the least, is for the rumor to go broadcast over the division that the fuel is not up to the standard; and it will require many days, if not weeks, to swing the firemen back into line. Some of his most exacting days will be spent in missionary work among the latter, preaching always from one text: "Fine coal does not necessarily mean bad coal." But a number of the firemen will always remain outside the fold to insist that so long as it has no lumps it is no good.

Some engineers are prone to resent any questions concerning any engine failure, considering them to be imputations on their ability. Patience and tact are both requisite to secure the facts.

"Why, that was only a minute!" some of them will exclaim, and they don't seem to grasp the idea that just as long a letter is required to explain a delay of a minute as one of twenty.

It should be added, however, that engineers, to a man, fight hard to keep a delay off the run slip, and this is all the more commendable in view of the fact that it is exercised irrespective of any feeling which they may have against the master mechanic or the shop. No case can be recalled by the writer in which a delay was wilfully brought about.

Satisfying the Super.

"Keeping the superintendent satisfied," may or may not be assumed as a trial to the master mechanic. It depends largely on his own attitude toward that official. The modern operation of railroading divides the entire system into a number of independent divisions, over each of which is placed a superintendent. He is all powerful within his own territory, so much so that to all intent and purpose he is practically general manager of his own little railroad, and the master mechanic will be sorely tried if he fails to gain his good opinion on the very start.

Another Complex Situation.

The master mechanic must furnish the power from his roundhouses in the shape of locomotives to cover the regular time card, and any others at the call of the despatcher which may be required for freight or extra movement, hence he has become identified as the most important member of the division staff, and the way he measures up to the requirements of his job has a material bearing on the record which the superintendent will make while in office.

Primarily the superintendent wants his trains run on time, and, just as important, he wants power to move them when a movement is necessary. Thus is brought about another complex situation with which many master mechanics are contending every day.

The Devil and the Deep Sea.

A man could never be placed more curiously between two fires than in trying to please both the superintendent and the motive power department, especially when the freight movement is heavy. His natural inclination would be to keep peace at home, and to this end, turn the power as fast as possible. It would be easier if an engine arrives on his ashpit, with flues tight, and otherwise O. K. in its basic principle, but still reporting several little jobs, to let these latter go, and turn it straight out on the road again.

This procedure is sure to gain friends on his own division among the transportation people, but if the power runs down for lack of care in the meantime he will very likely fall into disrepute with the superintendent of motive power. On the other hand, if he holds the engine in the roundhouse, and painstakingly and thoroughly does all of the reported work, a lament may go up from the same transportation people in regard to slow movements from the roundhouse, and their

inability to furnish power for the requirements of the traffic.

This situation requires the middle ground again, and all the common sense, judgment and diplomacy which the master mechanic can work into it. Some superintendents may be what are called "seven-by-nine" men, but the large majority are "broad gage" in its fullest acceptance, and will stand by the master mechanic nobly after the freight rush is over and he has his shop full of engines for repairs.

Keeping Down the Bills.

The question of keeping within the appropriation for expenses is probably as vexatious, if not more so, than the engine failures. The approved plan of the present day is to allow each master mechanic a monthly sum on which to run his department; that is, so far as salaries and wages are concerned. If he has a principal shop, working about one thousand men, and three or four little outlying roundhouses on his division, he may be allowed forty thousand dollars to pay everybody on his roll. The amount of these appropriations is fixed by those who have an intimate personal knowledge of the territories in which they will be spent, which is well evidenced by the fact that in the majority of cases they are just sufficient to make both ends meet, and no more.

The master mechanic can pull through on his appropriation by alloting a certain daily amount to each department, with a grand daily total of one-thirtieth of what it calls for, but in order to tell just how he stands on his expenditures it is necessary that the accounts be totaled every day.

Empty Stock-Rooms.

If rush work necessitates overtime to be worked the appropriation is generally so tight that he will be in a hole on the close of that day, and must try to get it back the next. If very much in the hole, through poor management or circumstances over which he has no control, the shops must be put on shorter working hours until the balance is restored.

Scarcity of material is about on a line with scarcity of money. The material is, of course, handled by the stores department, and the master mechanic is not directly responsible for its being on hand, although kept in his own storehouse. The monthly requisition for what is assumed to be needed is prepared by the storekeeper, who is not under the jurisdiction of the master mechanic, although it is not supposed to be forwarded for action until approved by him. The stuff seldom ever returns in the bulk indicated by the requisition or in season to forestall the embarrassing situations which must result when the supplies run out.

There is no greater trial for any man's patience than to have a bunch of orders returned to his office every day, marked "not in stock." It is always something for which the greatest need exists. As a rule, the shortage is in connection with the lighter supplies, and the extremes to which a man may be driven to counteract the situation would scarcely be credited.

A temporary remedy is often sought by the roundhouse foreman in robbing one engine for another, and when the master mechanic sanctions reluctantly this procedure he knows in his heart that the thing once started, it will never stop.

Robbing Peter to Pay Paul.

The writer worked for a road some years ago which possessed more than its quota of able-bodied requisition slashers, who performed their functions on these things after they reached the general offices. An example of their skill might be quoted in the instance of one item, which will illustrate about what befell the others.

It called for "six dozen coal scoops, or firemen's shovels," a very modest consumption when 4,500 locomotives were cared for every month, but the requisition cutter got busy with it by drawing his pen through the word "dozen," thus leaving "six coal scoops" for the purchasing agent to furnish. The six came along in due course but they didn't last long enough to get in the storehouse.

In addition to the shortage of shovels the situation was also reflected in this manner: it was not out of the accepted order of things to see an engine go out on an important passenger run with a

lantern wired in the headlight cage for want of an interior, and when one would arrive on the ashpit a gang of men would be waiting to remove the grease plugs, coupler knuckles, headlight reflector, and occasionally the air hose, with which to get another engine in service. Even the fire hooks and shaker bars ran "first in, first out," and it is recalled that they were so hard pressed at times that the tanks and reverse lever latches were put in the chain gang.

That storehouse also ran out of nuts. They had plenty, of course, for two and one-half or three inch bolts, which would have been quite acceptable in some marine engine works, but none of the common sizes, seven-eighths, or inch, which locomotives eat up in profusion.

In consequence, a machinist, at thirty cents an hour, would spend half a day rooting in the scrap pile for old, discarded nuts, and the other half tapping the rust from the threads of the few he was lucky enough to find.

The entire situation was distressing in the extreme, but in all fairness to the general executive handling of railroads this was an exceptional case. It is merely mentioned as illustrative of what a master mechanic may have to contend with, and what he must know how to meet if it arises, otherwise he cannot produce any locomotives to haul the trains.

How the Tools Get Mixed.

The majority of roundhouses and terminal points are short of locomotive tool equipment; that is, oil cans, headlight chimnies, lantern globes, coal picks, fire hooks, and other items of a similar ilk. They all have a system of tool inspection and accounting beyond criticism, but they insist that it is an almost impossible task to live up to the requirements.

The situation is held within reasonable bounds when the engines are assigned to regular crews who have a personal interest in looking after the equipment, but it is practically hopeless when the engines run in the chain gang, by any crew whose turn is "first out."

The engineers do not stop short of the master mechanic's office in filing complaints regarding shortage along this particular line:

"Mr. So-and-So, I have a hammer and a broken chisel on my engine, and no monkey wrench. The tool boy says he can't fit me out any better. I will go out if you say so, but I will not be responsible for want of tools to get into clear with if the engine breaks down."

What will the master mechanic do in that case, with the matter put squarely up to him? Time may be pressing, and perhaps even then the engineer should be on his train. He will try the storehouse, and they have no monkey wrenches, the tool boy could have told him that. In the last extremity, and in order to prevent a terminal delay, he will order a monkey wrench taken off an engine which is not going out, and away goes the tool system.

Holding Down the Job.

The problem based on the trial of "keeping the job" is frequently influenced by the often groundless fear of losing it. The surest way to lose it is to be worrying all the time over such a possibility. Many a poor fellow, when he feels that he is weakening, and he is entitled to sincere sympathy, has been known to sit in his office "like patience on a monument, smiling at grief," meanwhile waiting for the lightning to strike. If he had gone out and hustled around the shops a bit he would have felt better anyhow, and maybe the bolt would have missed him after all.

There is, however, room for worry over this particular feature, especially when things are not going very good. The experience of more than one master mechanic can attest that it is harder to keep the job under certain environment than it is to get it, and to get it implies just about twenty-five years' hard work in the subordinate grades.

Men have worked faithfully throughout that long period in the quest of this particular position, only to lose it shortly after acquisition in the drop of a hat. The causes which bring about retirement in some instances are too subtle to define.

The majority, no doubt, are soundly based on facts satisfying to the management, but some of them savor somewhat of injustice, which is not ordinarily associated with railroads.

Although the position, unfortunately,

is of a tenure extremely precarious, there need be no alarm if vigilance is never relaxed over the smallest item which may make trouble. If a man puts in his best licks the first year, makes a material reduction in the number of engine failures, and maintains a reasonably better showing than his predecessor, he has established a most convenient reference table for guidance in the future.

In those twelve months the master mechanic will have broken-down turntables, shortage of help, lack of engines, to say nothing of material, request from every man under his jurisdiction for an increase, clamor from each outlying point for an additional man or so, and enough letters requesting explanations to put a border on the universe; but when he is over with it all, and still has his job, with maybe a little raise in pay, he can dismiss the getting through bugaboo, and look the future in the face with a stouter heart. If it is his initial experience in the position, enthusiasm will not wane for a long time, but when it does it would be better to forestall the inevitable by withdrawing.

It may be, after all, that enthusiasm, rightly directed, is the chief requisite for success in this trying position. Many master mechanics will never mention these trials and tribulations which this article has, in a measure, dissected. They find a positive joy in fighting trouble because they know that they can beat it, and they have only to glance back over their careers to realize that scarcely a situation could arise which has not confronted them before and been effectually disposed of.

There is an inborn spirit of optimism in these successful men which rises supreme above all petty grief. When it is present the thought is untenable that they are special targets for adversity, and they are ready to admit that the fellow on the next division may have his troubles, too.

WHY THE CHIEF CLERK LAUGHED.

THE chief clerk leaned back and emitted a prolonged laugh. "Tell us about it," said the rate clerk and the stenographer in unison.

"Here is one that has the agent that was canned out at the coal-mine backed off the board," replied the chief clerk as he read:

MR. B. B. BLANK, D., F. and P. A. Ry., MONTANA:

DEAR SIR—Attached hereto please find statement of emigrant movables received at this station and star stations for the months of February and March.

I regret very much in overlooking this report and likewise do not care to complain of the reasons as it only reflects on the agent, and he is at once put down as a chronic kicker. But I beg to advise that I have had four or five green operators to break in, and, besides, having all the work to do myself, I have to check over what they do.

I am reminded at this station of a passage of Scripture where the Saviour asked for bread and they gave Him a stone.

I asked for a warehouseman and they gave me a beautiful eighteen-year-old girl to tickle the telephone. This lets me handle the U. S. mail; in fact everything that is to do, as one who wears petticoats is not adapted to the work incumbent to a railway station. Of course, if she was a telegraph-operator and understood station work, I could get along, but I haven't the time to teach her, and as I have been doing this kindergarten stunt for some time, I find my patience considerably worried.

Now, if you will kindly put in a word to the superintendent for me, I may be enabled to get a man in place of this fair damsel. I can use him for a warehouseman as well as a phoneite. Yours truly,

AGENT.

SWIFT BUSINESS.

A WESTERN railroad recently received the following letter:

DEAR SIR—In answer to yours of the 26th of June, I have delayed this letter on account of my barber-shop burning out and I moved to Decatur, Illinois.

Inclosed find B. of Laddin. I ordered the carrage 11 month ago. Swift Business. I hope there are no more delay on your part. The baby we ordered the go cart for has grown out of it. But it will come in handy anyway, for we have an other baby boy 12 lbs. I am sorry but cant help it. We also wrote the Tobacco Co. about it. Hoping we may get it in a few days.

Ship to ——,

Decatur, Ills.

WALWORTH, THE SNOB.

BY ROBERT T. CREEL.

A Battle Royal That Found the Mettle of a Victim of Too Much Higher Education.

"SAY, Percy, would yĕ mind throwin' a little coal in the bloomin' fire-box? Ye know, she won't make steam unless she's kept warm," said Snub Hicks, gazing mildly at his new fireman.

Adrian Walworth, Jr., hastened the departure of a drop of perspiration that hung on his chin, closed the fire-door, and felt for his monocle, the better to perceive the man who had made such a strange request.

For it was strange, in view of the fact that Adrian Walworth, Jr., had been shoveling coal steadily for the past six hours, though with small results in the shape of steam. Having forgotten his precious glass, he was forced to make such observations as he could with the naked eye.

"Ah—my name is *Mister* Walworth," he stated resentfully. It seemed that this person must be kept in his place. His mocking speech was not to be tolerated.

"Not while you're tallow-pot on this smoke-wagon," quoth Hicks. "All you got to do is keep 'er hot. I'll tend to the sociabilities."

"My word," murmured the young man, returning to his work.

This thing of learning the business from the ground up, he reflected, was not without its embarrassments.

Here was he, the son of the vice-president of the road, recently returned from an English college, subordinate to a common engineer. This trying position gave rise to another problem. How should he address his task-master?

Due respect for his own social standing prevented the use of the word "mister;" nor could he call the man Snub. He had begun by calling him "my good man," but when the worthy Hicks jerked open the throttle, and he saw the greater part of his fire pass out the smokestack, he rejected the term as unsuitable.

With some disgust, the elder Walworth had noted the affected mannerisms of his newly graduated son, and, after some deliberation, he decided that it was out of the question to start the boy on his career until he had outgrown some of his snobbishness.

For this purpose he knew there was nothing better than a period of service as a fireman, feeling assured that whatever qualities of manhood were in the boy's make-up would be brought to the surface as in no other way. So it was that, being spared the preliminary labor of the roundhouse, the young man had been called for his first trip.

Following a confidential talk on the subject with Adrian's father, Hicks firmly resolved to do his duty toward the new fireman, or "stoker," as Walworth, Jr., was pleased to call himself.

As his train consisted of a string of empties, the engineer feared that the young man might find the work too easy, so from the start he had systematically "cleaned" the fire when the gage began to show a fairly good pressure. During one of the infrequent breathing intervals, Adrian, Jr., climbed wearily to his seat-box.

"Gettin' pretty cold in here, Percy," yelled Hicks suggestively. The embryo fireman started to step down, but on raising his leg the muscle suddenly

cramped, as tired muscles will. A second later Hicks noted his strained attitude.

"What d'you think you are — a chicken?" he asked gruffly. "Put down your leg, an' get up a little steam."

"I believe I've a bally cramp, old chap. Ah, it's all right now."

No sooner was one leg released than the other was drawn up in the same way. Perhaps it was a touch of pity that made the engineer take the shovel.

"Get up on the tank an' shove down some coal, while I put in a fire," he commanded. "We got to be movin' along."

With a sigh of relief, Walworth, Jr., dragged his tired feet upon the tender and did as he was bidden. Although his determination to do his work well had carried him thus far without serious trouble, he was much too sleepy to resist the subtle warmth of the morning sun and the rocking motion of the train.

He sat down. As some philosopher has observed, one thing always leads to another. In this instance, repose led to slumber. It also led Hicks to profanity.

Shovel in hand, he advanced on the erring fireman, who slept serenely, unconscious of impending disaster. Deliberately setting himself, Hicks swung the shovel, bringing it down forcefully on the back of the sleeper.

It was as if the secret spring of life had been touched. The long form of Walworth, Jr., sprang upright, his lips emitting a word that sounded like "mercy!"

"I must have fallen asleep!" he exclaimed, rubbing his eyes.

The two resumed their places in the cab, and neither spoke until they rounded the curve that brought them in sight of Meadow Siding. Here were waiting a gang of Italian laborers who had been employed on some construction work at the place. Seeing the train, the workmen made a rush for a flat car that was standing with two box cars on the side track, the whole crew clambering aboard.

"Wonder what's doin'?" said Hicks. "Them dagoes seem to be excited."

While they were taking water the head brakeman came running up, followed by the station-agent.

"We got orders to pick up them three cars, Snub, an' that bunch of dagoes say they're goin' to stay on till they get to Ardmore. What'll we do about it?" questioned the brakeman.

"Reckon we could put 'em off?"

"Nope. There's too many of 'em. All got knives."

"Think it'd be all right to leave that car here?" queried Hicks, turning to the agent.

"You might," returned the other; "I guess there won't be any trouble about it."

Uncoupling the engine, they switched back to the rear of the train, which they pushed ahead for some distance, leaving a clear track for their maneuvers. The car chosen by the Italians was in front of the other two; therefore, Hicks deemed it best to approach them from the rear.

It was the work of but a few minutes to haul them out on the main line; then, with suddenly accelerated speed, to shunt the flat car back on the siding, and, while the Italians were yet trying to stop it, push the two box cars triumphantly toward the waiting train.

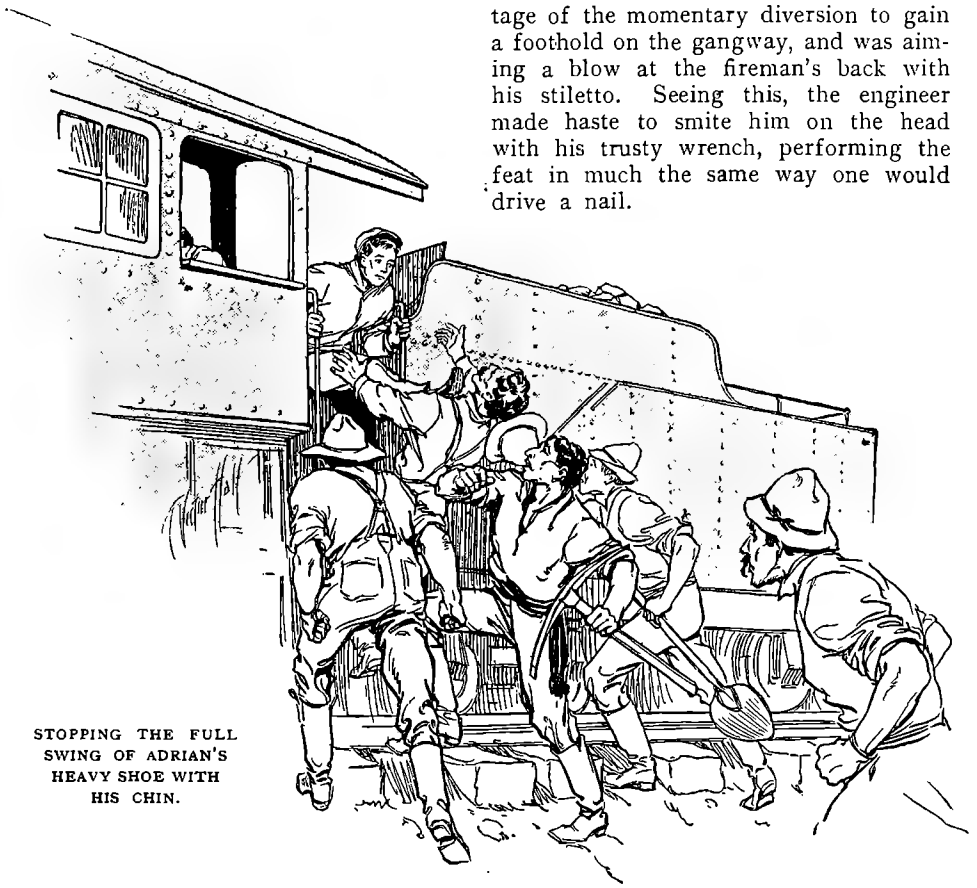
These moves had been watched with keen delight by young Walworth, who so far forgot his dignity as to wave a grimy hand at the disgruntled laborers as they passed. No sooner was the gesture made than he heard a noise different from that ordinarily made by the engine, whereupon Hicks cursed loudly and closed the throttle.

"We're stuck for a few minutes, kid," he said, with an apprehensive glance at the Italians, who, seeing his predicament, were swarming along in pursuit, like angry bees. "You try to stand 'em off till I see if I can get 'er tinkered up."

It was a nervous fireman that watched the leaders of the rabble gain on the slowly moving engine. Yet in his bearing there was nothing of fear. It was rather the excitement of the thoroughbred before going into action.

Yelling to his followers, the foremost attacker mounted the first step; then, stopping the full swing of Adrian's heavy shoe with his chin, he bit off a word together with a portion of his tongue and plunged over backward so precipitately that it must have surprised even himself.

After breaking the force of his fall with the back of his head, he experienced no difficulty in alighting, and lay quiet thereafter, as if satisfied with the day's work.



STOPPING THE FULL SWING OF ADRIAN'S HEAVY SHOE WITH HIS CHIN.

In the meantime, his companions pressed onward in such numbers that the fireman, using feet and shovel alternately, found it no easy task to keep the narrow gangway clear. Hicks, working madly, shouted encouragement:

"That's the dope. You got 'em fuddled, Percy. Keep after 'em."

"Take that, you beggar!" grunted Adrian, striking valiantly at a man who had slashed the leg of his overalls.

"Look out! There's one comin' over the tank!" cried Hicks.

When the newcomer, stumbling and sliding on the coal, lurched toward him, Adrian shifted the shovel to his left hand and drove his gloved right into the man's stomach. At that moment Hicks, having completed his work and opened the throttle, turned his attention to the fight.

One of the Italians had taken advantage of the momentary diversion to gain a foothold on the gangway, and was aiming a blow at the fireman's back with his stiletto. Seeing this, the engineer made haste to smite him on the head with his trusty wrench, performing the feat in much the same way one would drive a nail.

The man crumpled down in a heap, thus ending the struggle, the others being already left behind by the swiftly moving engine.

Safely out of danger, the engineer and his fireman stood looking calmly at each other.

If their faces were expressive of their thoughts, it was evident that each felt himself guilty of misjudging the other.

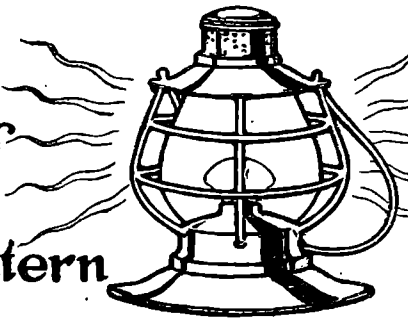
"I owe you something for that, and, believe me, I am sincerely grateful, Mr. Hicks," said the young man, with respectful admiration in his voice.

"Don't mention it. You're the goods, an' I'm glad to have you on the engine, Mr. Walworth," replied the older man warmly.

"Here's my hand," said Walworth.

WHAT'S THE ANSWER?

By the Light of the Lantern



Questions Answered for Railroad Men

ASK US!

WE like to be as useful to our readers as we can; but, because of the great popularity of this department, we are forced to impose certain restrictions. In future, we shall be compelled to limit its scope to the answering of questions of an informative, technical, or historical nature only. Letters concerning positions WILL NOT be answered in this department. All letters should be signed with the full name of the writer, as an indication of his good faith. We will print only his initials.

PLEASE state the length of a circle formed by a one-degree curve, and if the distance around a two-degree curve would be one-half of the one-degree curve.—H. E., San Bernardino, California.

The radius of a one-degree curve is 5,730 feet, or a diameter of 11,430 feet; the radius of a two-degree curve is 2,865 feet, or a diameter of 5,730 feet; therefore, a curve of one degree is twice the size of a two-degree curve.

A FIFTY-FOOT car is to be weighed on a forty-foot scale, thus necessitating the weighing of each end separately. To obtain the correct weight of the car is it essential that each truck be placed the same distance from end of scale? Under the same circumstances what would be the result if scale was located on an incline?—T. P. D., Dallas, Texas.

The fifty-foot car should be weighed by placing each truck as near as possible in the center of the scale, and the sum of the two weights will be the weight of the car within a few pounds. We have often weighed main connecting-rods for locomotives, one end at a time, and had them come out within half a pound of the true weight; but, in the instance of your problem, care should be taken that on the second weighing the end of the car off the scale should be as level as in the first weighing. You will often notice that the ground on both ends of the scale either runs up or down hill, which would make an irregularity. Weighing anything on an inclined scale is never reliable. A scale should be absolutely level.

M. B., Baltimore, Maryland.—The number of locomotives built during the past year is little greater than the 1908 figures, in spite of the improvement in general business conditions during 1909. However, it has really been but a few months since the railways came into the market with substantial inquiries, and deliveries on orders placed at the beginning of this movement did not begin until last fall. Returns from fourteen locomotive builders in the United States and Canada (estimating the output of two small plants), show a total of 2,887 engines built, of a total of 3,233 ordered. Of the 2,653 built in the United States, 2,362 were for domestic use and 291 for export. These figures include 16 electric and 119 compound locomotives. The Canadian engines, 234, were

all for domestic service. Since 1893, the banner year in this industry was 1907, with 7,362 locomotives, and the poorest year was 1894, with but 695 engines.

TO decide a bet, please say if it is the law in Arkansas that no one-engine train shall consist of more than twenty-six cars. A claims that if there are twenty-seven or more cars, the law compels the use of two engines. B claims there is no such law. Who is right?—C. L. B., Creede, Colorado.

Arkansas has no law providing that trains of more than twenty-six cars must have two engines. In fact, no law whatsoever along such lines. There is a law in that State providing that trains of twenty-five cars or more must have three brakemen, but this does not affect lines under fifty miles in length.

J. H. R., Rochester, New York.—A lengthy search fails to bring to light any data regarding the "R. and H." Railroad in New York State. After the careful examination of various records which we have made to locate this road we are inclined to the opinion that it never existed, or if it did, it was in the nature of a private enterprise of exceedingly limited scope. You mention the probable length of the road as three miles. Therefore, it would seem that for this to be put out of business on account of a strike of trainmen and operators would be a joke. One crew and one operator, or no operator at all, should suffice to run it, if a junk line.

WHAT is generally supposed to be the best locomotive valve gear for very fast speed, such as Philadelphia and Reading trains, or Twentieth Century Limited?

(2) What kind of engines are used on above trains, also Atlantic Coast Line? Where were they built? What is diameter of driving-wheels and what system of air-brake is in use? Are they piston or slide valve, superheater or compound engines?

(3) Is the Baker-Pilliod valve gear supposed to be better than the Walschaert?

(4) Describe the best method of laying off shoes and wedges on an engine so that the wheels will tram square with the engine.

(5) What is the best system of laying off main driving axle for eccentric key-ways?

(6) What is the correct way to have pressure-plate on steam-chest cover lined up with washers when there has been new copper gaskets applied to steam-chest and cover?

(7) Are there any engines in this country with Joy valve-gear, or with a superheater in the fire-box?—T. J. M.

(1) With everything in proper condition and friction reduced to a minimum, we see little to choose from in this regard between any of the various gears. The fastest mile ever run by a steam locomotive was made in 32 seconds by the famous 999, equipped with Stephenson link motion and balanced slide-valve. The Walschaert motion is more accessible to repairs and inspection than the other, but the distribution of steam is no better, as is clearly shown by an analysis and comparison of indicator cards taken under the same conditions with each motion.

(2) They are running Pacific, or 4-6-2, engines on the "Century" at this writing. The Philadelphia and Reading has made most of its famous runs on the Atlantic City division with the Atlantic, or 4-4-2 type, and on the Atlantic Coast Line ten-wheel, or 4-6-0 engines, were in use up to a very recent date. A good many of these things depend on the personal ideas of the various motive-power management, and there is no hard and fast rule for any of them.

(3) Its advertisement reads in part as follows: "Engines so equipped will pull a greater tonnage with less fuel and water, and make the same time as engines equipped with any other gear." We never had any practical experience with this motion, and know very little about it, except that engineers with whom we have talked who are running it say that it is very serviceable and economical.

(4) It is quite hard to outline this elaborate operation in detail within this space, and more so when we are unaware how much real knowledge you have of the subject. The best way, and, really, the only way, is to get the centers of the main pedestals, which can be readily done from the center of the exhaust port in the cylinders, and use this point as the working basis. After you have secured the center of the pedestals mentioned, and squared them across the frames, simply work each way from that pedestal. It is impossible to go very far wrong in this job if ordinary care is used, but without the exercise of this care, grave complications will ensue, such as worn brasses and knuckle-pins, cut driving-tire flanges, and a poor riding engine.

(5) The best system is to put the wheels under the engine with the eccentrics fastened temporarily and go through the entire operation of valve setting. When complete, scribe the key-ways off in the axle and cut them. By following this plan you will know to a nicety what you have. If, however, it is considered absolutely necessary to cut the key-ways before the wheels go under it can be done, but the liability for off-set eccentric keys is always in evidence following the oper-

ation. If an indirect-motion engine, simply place the main wheels with the crank-pin on the exact forward center and advance the forward motion eccentric toward the pin the exact sum of the lap of the slide-valve and the lead desired.

This can be done quite readily by means of a heavy butt steel square placed on a board under the eccentric, after the right angle position to the crank-pin of the latter has been ascertained. Seven-eighths outside lap and one-eighth inch lead would be a progressive movement of one inch on the board for the square butt. The back motion eccentric should be set as far below the pin as the forward is above. There are some very clever ideas in vogue for determining the position of eccentrics without valve-setting as a preliminary, and the writer has practised them all—but, in the long run, it will be found advisable to proceed as first indicated in this answer.

The eccentrics are so heavy these days, and so liable to commence working at an early date, that anything like a "stepped key" is a grievous fault, and a "stepped key" is quite likely in any plan other than honest valve-setting.

(6) If the steam-chest has new or annealed copper joints the general practise is to allow one-sixteenth inch for the compression of the copper. When the cover is finally bolted down there should be no less than three-thirty-seconds of an inch between the pressure-plate and the top of the valve.

(7) Don't know of any Joy valve-gear in this country, and no engines in the world with superheaters in the fire-box.

L. E. D., Gastonia, North Carolina.—The standard length of a rail is thirty feet, but they have been rolled much longer than that. We believe that at one time experiments were made on the Pennsylvania with rails even sixty feet long. There are few now above thirty feet used anywhere.

TAKE two locomotives of some given type and give each 1,000 tons to haul and 100 miles to run. If one of the engines was taking steam eight inches of its stroke, and the other six inches, what would be the difference in coal and water, and which would use the least?—O. A. D., Sedalia, Missouri.

One of these engines is using two inches less steam than the other for each one-half turn of the wheels, or a total saving of eight inches reckoning both sides of the engine, in each revolution. Necessarily it will use much less water and fuel than the one running in the eight-inch cut-off, but just how much we are unprepared to say, as your question does not embody sufficient data for even a surmise. It would, in fact, require an elaborate indicator test to arrive at the exact figures. However, roughly speaking, the saving should be at least two tons of coal and, maybe, 2,000 gallons of water.

C. W. F., Mullan, Idaho.—The tractive power of a locomotive multiplied by the speed in miles per hour, divided by 375, gives the horse-power.

B. E. S., Pierce City, Missouri.—There are no division superintendents on the Alaska Central Railroad at present. J. R. Van Cleve is the master mechanic. Address: Seward, Alaska.

S. K. C., Davisville, West Virginia.—If you will send a more detailed description of your proposed valve-motion we will be pleased to advise concerning its merits. Any new idea tending to further eliminate parts will always be viewed with favor by railway motive-power management. In regard to the duplex air-pump, you were not sufficiently explicit in indicating to just what ports in the cylinders you refer. The air-cylinders are compounded, *i.e.*, the large cylinder draws in air at atmospheric pressure, compresses it to about one-half the required pressure, and exhausts it into the small or high-pressure air-cylinder, where it is further compressed to the required reservoir pressure and exhausted into the main reservoir. The steam-cylinders are not compounded.

WHERE can a standard railroad book of rules, signals, etc., be obtained?

(2) Please describe the Walschaert valve-gear, with a diagram.

(3) How many types of locomotives are there, with their names?

(4) What is the fastest locomotive, what make, and on what road?—L. O. S., Topeka, Kansas.

(1) Apply to *Railway and Locomotive Engineering,* 136 Liberty Street, New York City, and a list will be sent you from which a selection can be made. You might also address the *Railroad Age-Gazette,* New York City.

(2) The Walschaert valve-gear differs from the ordinary link motion in having only one eccentric-rod, in altering the position or travel of the valve by moving the end of a bar attached to the end of the valve-rod up and down in the link, without moving

the link, and in having the valve-rod also attached to a lever that derives its motion from the cross-head.

This last detail determines the lap and lead of the valve and gives them a fixed value; whereas, the ordinary link motion gives a variable lap and lead, affected by the valve travel. The Welschaert gear derives its motion from an eccentric crank, or return crank, on the main crank-pin.

The eccentric-rod is secured to one end of the link, which is pivoted in the center on a pin held by a bracket bolted to the guide-yoke. The link-block is secured to a radius arm or bar, one end of which is attached to the end of the valve-rod and the other end to the lifting arm of the reverse shaft. The motion imparted to the valve by the cross-head connection is small, as the cross-head arm and union link are attached to the lower end of the combining or combination lever, while the radius arm and valve-rod are connected close to the upper end, thus imparting only a slight motion to the valve-rod.

For large locomotives, Walschaert's gear is now extensively used, because it has lighter moving parts, and these parts are more accessible for inspection and repair than those of the common form of link motion. We cannot furnish a drawing of this motion. Write to either of the firms mentioned in reply to your first question.

[An article describing at length the Walschaert valve-gear, its inventor, and its application to locomotives is being prepared for an early number of THE RAILROAD MAN'S MAGAZINE.—THE EDITOR.]

(3) The following represents the types of locomotives as enumerated in Whyte's system of locomotives classification which is generally in vogue: Four-wheel switcher, 0-4-0; 4-coupled and trailing, 0-4-2; Forney 4-coupled, 0-4-4; Forney 4-coupled, 0-4-6; 6-wheel switcher, 0-6-0; 6-coupled and trailing, 0-6-2; Forney 6-coupled, 0-6-4; Forney 6-coupled, 0-6-6; 8-wheel switcher, 0-8-0; 8-coupled and trailing, 0-8-2; 10-wheel switcher, 0-10-0; 8-wheel articulated, 0-4-4-0; 12-wheel articulated, 0-6-6-0; 16-wheel articulated, 0-8-8-0; 4-coupled, 2-4-0; Columbia, 2-4-2; 4-coupled double ender, 2-4-4; 4-coupled double-ender, 2-4-6; mogul, 2-6-0; prairie, 2-6-2; 6-coupled double-ender, 2-6-4; 6-coupled double-ender, 2-6-6; consolidation, 2-8-0; Mikado, 2-8-2; 8-coupled double-ender, 2-8-4; decapod, 2-10-0; 10-coupled double-ender, 2-10-2; centipede, 2-12-2; 8-wheel American, 4-4-0; Atlantic, 4-4-2; 4-coupled double-ender, 4-4-4; 4-coupled double-ender, 4-4-6; 10-wheel, 4-6-0; Pacific, 4-6-2; 6-coupled double-ender, 4-6-4; 6-coupled double-ender, 4-6-6; 12-wheel, 4-8-0; mastadon, 4-10-0.

The figures following the names in each of the above definitions, are intended to illustrate the wheel arrangement.

For example: the 4-6-2, or Pacific type. From the figures we gather that it has a four-wheel engine truck, six connected drivers, and a two-wheel trailer. The hyphen between the figures indicates that each section of the wheel arrangement is an independent unit. This is conceded to be the cleverest arrangement yet devised to describe a locomotive in the smallest space. Very little practise is required to become thoroughly familiar with its intent.

(4) It is very hard to pick out the "fastest" locomotive. All modern passenger power is fast enough if not overloaded, and nothing but an exhaustive test would indicate the survival of the fittest. However, the fastest passenger-train running regularly in this country is probably the Twentieth Century Limited, of the New York Central lines. This train is run, at present, by a Pacific, 4-6-2 engine, one of which is numbered 3565. It is equipped with Walschaert valve-gear, and weighs, in working order, 266,000 pounds.

With one exception, one of the same type built for the Pennsylvania, this is the heaviest passenger locomotive ever built of this type, although there is an articulated on the Santa Fe which exceeds the weight of either.

J. G. B., N. S. S., "Idaho."—The mechanical department of the Florida East Coast Railway is constituted as follows: G. A. Miller, superintendent of motive power; C. D. Vanaman, master mechanic, and W. L. Singleton, master car builder. Address of all St. Augustine, Florida.

D. F. M., Brennerton, Washington.—Our records indicate that N. M. Maine is master mechanic at Miles City, on the Chicago, Milwaukee and Puget Sound Railway, but some changes have been made recently and it may be possible that he has been transferred or promoted.

MUST a man fire a freight-train before he can fire a passenger?

(2) Must engineers run freight before running passenger?

(3) Where do all the engineers go—as a fireman is promoted after five years?

(4) If an engineer is discharged can he get a position as engineer again without firing?—H. E. B., Streator, Illinois.

(1) It is practically the universal rule, and, independent of this consideration, a new man would have small chance of secur-

ing a passenger job from the fact that they are considered better jobs through the shorter hours, and are bid off by the older men when they become vacant.

(2) Always.

(3) There is no hard-and-fast rule governing a fireman's promotion. Some men fire ten years, or even longer. Engineers retire in a higher ratio than might be imagined through the age limit, which is now practically universal on all roads.

(4) His chances are very poor. It is doubtful if he could secure employment again as engineer in this country, but this would, of course, be somewhat influenced by a consideration of the offense which resulted in his dismissal.

W. W. W., S. M.—There is no superintendent of motive power or master mechanic on the Grand Trunk Pacific in the territory which you mention. William Gell is master mechanic, and George W. Robb, assistant master mechanic, both at Rivers, Manitoba. B. B. Kelliher, chief engineer, and H. A. Woods, assistant chief engineer, are located at Montreal, Quebec.

M. C. H., High Point, Texas.—The most popular engine in freight service on the two roads which you mention in Iowa, is the 2-8-0 type. We have no statistics on the largest number of wide fire-boxes which they run in that service, and cannot pass on the comparative merits of the roads.

DOES the Santa Fe use coal for fuel extensively on any of its divisions in New Mexico or Arizona?

(2) What salary does a road foreman of engines draw?

(3) Does an engineer generally receive more pay than a conductor?

(4) Which is the hardest on the fireman, an engine with a wide or a narrow fire-box, or with large or small drivers?

(5) Is an average size Pacific type engine harder to fire than an average size Atlantic type?—C. V. McM., Kansas City.

(1) They were using coal east of Winslow and oil west, over the desert, but we cannot speak definitely at this time.

(2) From $125 to $150 per month, plus his expenses while away from his home station on business.

(3) As a rule, yes.

(4) There is no real difference. "Hard" is dependent on the skill of the man and the requirements of the service. More work may be required to keep the grate covered in an extended fire-box, but this is well compensated for in the superior steaming qualities which this construction presents over the long and narrow fire-box.

(5) It would depend, of course, on the service which the engines were in. A good fireman can fire anything.

G. C. A., Malvern, Iowa.—The only instance of which we have been advised where operators are carried on trains is where trains are electric lighted, and the electrician in charge is competent to act as an operator. We cannot find any record where they are carried in the capacity of operator, solely for that work.

HOW many roads west of the river have installed the telephone for despatching trains? Please give their names, mileage, and the salaries paid chief despatchers.—F. E. H., Fort Wayne, Indiana.

No roads east or west of the Mississippi River have made a complete installation of the telephone system. A recent compilation shows five per cent of the total trunk-line mileage of this country to be operated by telephonic train despatching circuits, but every road upon which it was then in use contemplated a further extension.

In the territory to which you have particular reference, it will be found in part on the Chicago, Burlington and Quincy between Aurora and Mendota, 46 miles; Aurora and Chicago, 37 miles, and Aurora and Savannah, 108 miles.

The following Western roads are making extended applications and, in time, expect to operate by telephone exclusively: Illinois Central, Canadian Pacific, Chicago, Milwaukee and St. Paul, and Chicago and Northwestern.

The Michigan Central, Union Pacific, and Santa Fe have been making extensive experiments and may install such systems. As we have frequently stated in this department, the innovation has implied absolutely no change in the previous compensation given despatchers and operators. We are unable to say exactly what a despatcher's pay is on the above roads, but, in all probability, it will approximate $150 a month.

T. S. G., Tyrone, Pennsylvania.—There appears to be somewhat of stagnation in railroad building in the Far Southwest at the present writing, and we do not find any activity in new construction other than that with which you are familiar. At all events, on any new road the mechanical department is about the last to be organized, as in the construction work the locomotives handling the same are provided by the contractors and run by men on his pay-roll.

STEALING AN ARMORED TRAIN.

BY FREDERICK J. LIESMANN.

An Attempted Hold-up Brings Back Pleasant Memories of Revolutionary Days on the Island of Cuba.

I CLEARLY remember that I had just glanced over John Parker's big irregular scrawl: "To hors shoing—$14.00," when I heard a faint, *click—click!* and directly afterward the voice—thick, guttural, and, it seemed to me, just a bit tremulous:

"Hold up your hands!"

That and the quick rustle of Reese's newspaper as we both looked up.

The devil—I knew him by his horns and long pointed red face—was leaning in the big office-window, his elbow steadied on the counter that ran along the grating. In his hand was a large revolver—the muzzle was scarcely a foot from the superintendent's head.

Scoville, his pen poised in air, glanced at his satanic majesty with remarkable indifference.

"Speaking to me?" he inquired.

"Y-yes, I'm speaking to *you!*"

"Just a minute, please," said Scoville, and calmly resumed his writing.

For a moment the devil stared at Scoville as if mesmerized. Then I saw that the satanic visage was, in reality, a human face topped by a low, slouched hat, and masked below by a soiled handkerchief. To my surprise, his pistol-hand sank slowly to the counter.

"Holy Moses!" he quavered, "I cain't shoot a man and him a writin'."

Scoville made a dab with his blotter and swung easily around.

"Say, kid," he drawled. "You're — a — peach. Take that rag off your face and come around here. Le'see how you look."

With ludicrous concern the bandit let down the hammer of his weapon, put it into his pocket and shambled into the office as if the entire proceeding was a mere matter of course.

It was a gaunt, homely boy of eighteen, a hunger-marked, poverty-stricken, grotesquely pathetic wretch that cowered against the grating, blinking at us with the helpless look of a trapped rabbit. Scoville's eye took in every detail of his miserable figure.

"What's the idea of the stick-up, son?" he asked kindly. "Busted?"

"Busted," murmured the boy. "Hungry. No work. I cain't git work." His voice was husky, and I saw the glint of a tear in his eye as he barked savagely at Scoville: "I've gotta eat, ain't I?"

"We've all got to eat," said the superintendent, after a long pause, "Reese, get him a feed and a bunk and put him on one o' them snatch-teams to-morrow. Seven o'clock to-morrow, boy. You understand?" He turned again to his desk.

"Say," half whispered the boy, as he and Reese went out, "ain't he the limit?"

"H'm," laughed the foreman. "You've only seen him *hire* a man. You orter see him fire one."

REESE.

Some seven years elapsed after I left the Acme people before I saw Reese again. We were building the Southern Branch, and on my first trip over the line I met the old fellow.

SCOVILLE GLANCED AT HIS SATANIC MAJESTY WITH REMARKABLE INDIFFERENCE.

Loquacious and friendly as ever, he insisted on showing me everything of interest in the camp. As we passed the Big Fill he suddenly seized my arm.

"Bill," said he. "D'ye know that stumpy square-shouldered plug up there on the dump?"

"Why," I asked. "Isn't that Scoville, who used to be supe at the Acme?"

"Right you are. That's him. That young cub with him's Johnny Britt, the assistant supe. Them two's what I call the stick-up twins."

"The stick-up twins, eh? Where do they get that name?"

"They earned it, by Jimminy! They earned it and I give it to them. I seen them two stiffs—you know what I seen them two stiffs do? I seen them two thieves steal an armored railway train from the kingdom o' Spain."

"Here! Here! Reese. What kind of a romance is this you're building?"

"Just to give you a faint idea of the magnitude o' that there undertaking," said the old man. "Lemme put you a hypothetical question, to wit:

"If you was a Cuban insurgent, in an insurgent's uniform, and you knew that every Spanish soldier in the Island would shoot you on sight—you understand?—that no matter what they would or would not do afterward, you was well aware from previous experience that the *first* thing they'd do would be to cut down on you with intent to kill and cripple; and if you was the commanding officer, field staff, and band of an insurgent column consisting of yourself, two other Americans and a Cuban; and while percolating through the jungle four strong, as mentioned, you came out on a railroad and saw standing thereon an armored train guarded by eight hundred gallant galoots o' the Spanish army, all armed to the teeth and loaded for bear; and, whereas,

"Would you, under them circumstances, have the bronze audacity to—try to —steal—that—armored train?"

"I would have the good judgment," I said, "to steal swiftly away from that armored train."

"Well, them two done it."

"Did what? Stole away?"

"Naw," exclaimed the old man. "Stole the train. Yes, I mean that them two cheap pilferers had the monumental, marble gall to go and steal that armored train.

"Oh, I'll admit I helped 'em do it," he continued deprecatingly, "but I only helped 'em do it to show 'em they couldn't do it—and, by gosh, they went and done it."

"Reese," said I, "if you can demonstrate to me how that thing was done, I'll buy you the most expensive drink in the State of Colorado."

The old man crammed a horny finger into the bowl of his pipe.

"We had the class all right—Scoville and Britt and me were there with bells on. And Weber—say, that Dutchman had the science of explosives down to the thin blue milk. He'd orter been an anarchist. Honest, I believe that plug could 'a' took a snowball and a box o' matches and cracked a bank.

"Then there was Delgado. He was a negro, but, believe me, Bill, he was some grub-rustler and cook. Oh, yes. We had the class all right, but that bunch we traveled with—say!

"On the square, Bill, they must 'a' had a bumper crop o' colonelcies when they invented one onto the Honorable Don Sebastian Guillerme, etc., etc., Machado. I remember the day we hit up with him, Weber says to me.

"'You, R-reece! Dat distinggished-looking officerr. Ve haf been assigned to hiss commant.'

"'What,' says I. 'That pot-bellied gink with the wind-strainers draped onto his chops? Gentlemen, we've had to endure some freaks, but, suf—fering Jupiter! if that there Darwinian party don't prove to be the yellowest, quittingest, orneriest fizzle we've *ever* been up against, I'll eat your old sock. I don't claim no gift o' prophecy, but you'll find that I've got the potent dope on Mr. Machado, all O. K.

"And if that gallinipper could be a superior officer, you can well imagine what the rank and file was. The best-balanced gun they ever issued me, I busted over the upper right-hand corner of his chief o' staff. Aw, well, he didn't have nothing to do with stealing the armored train, except that he started it. Yes, Machado started it. He was always for starting something he couldn't finish."

Reese gravely relighted his pipe.

"Yep," he continued, "that was Machado's long suit. If he could have finished all he started he'd 'a' been a pippin.

"Colonel Machado, with all respect to the fool, had the world skinned in this here one respect, to wit:

"He could put up a job on somebody and demonstrate to your entire satisfaction that the victim had no more chance than an armless wonder would have with a typewriter, and yet, when the other fellow got through working on him, you'd have to drag Machado out with a hook. I think one o' them hickory-headed general staffs rolled this armored train pill for him.

"They were going to lay an ambush for eight hundred Spaniards and an armored train at a place where the railroad made a long bend northward along a deep dry creek. While they were eating them Spaniards alive, Señor Scoville was to take his Americanos, and blow up the track behind the train so she couldn't get back, when he intimated something about the chance of failure.

"'The illustreeous *señor*,' says Machado, plumb Napoleonic, 'makes the joke. My genius knows not the failure.'

"That, mind you, when they'd cleaned him every time he'd faced the flag. The durned old package o' peanuts was simply born with a corn on his bean, and didn't know it.

"'What do you think of the colonel's scheme, Reese?' says Scoville, when we were alone.

"'Great!' says I. 'When they give him the grand run, we, being by ourselves, can beat it through the brush like gentlemen without having a pack o' Cubans running all over us.'

"'Ach, R-reece,' says Weber, 'you're a bessimist. You're always exberiencing sour bickels.'

"All right, thinks I. I'd rather be a pessimist under criticism than an optimist under a headstone.

"I will say, however, in all justice to the colonel, that the death-trap he picked out for them Spaniards was a peach. There were three different ways

by which him and the general staff could take a swift sneak without exposing themselves.

"Three ways, understand, outside of plain running away. I'd always considered the last-mentioned as amply sufficient, having never yet seen a bullet overtake one o' them heroes after he'd got fairly started. As far as our part was concerned—well, if you cared to see box cars jump around like fleas and railroad tracks get right up and embrace each other like long-lost brothers, just let Weber place the dynamite.

"We'd fooled around all of two hours after we'd got our dynamite placed and the wire strung into the brush, smoking and dialoging over the situation, when—*Bat! Bat! Br—r—rt! Bat—bat!* they opened up.

"'We're off,' says Johnny Britt.

"'Yes,' says I, 'and I'll bet the colonel'll cut the corners as close as any of 'em.'

"Somehow, we all felt sort o' spotted about that scrap from the very beginning. She didn't start right. They just kept *bat—batting* and *pop—popping* at each other in a half-hearted, indifferent kind of a way until Scoville says:

"'Boys, that there don't sound just right to me, somehow. Them Spaniards are extending to the northeast. First thing you know there'll come a puff o' bullets from that flank, and before they all get by you'll see Machado's outfit coming out of that creek bottom like a bat out of a burning house. What I wish, particular, to forecast is that when they jump out in front of them Spanish Mausers, and try to beat it over the railroad dump, the results are going to be plumb astonishing.'

"'What if they should come a pilfering down this side of the track?' I asked.

"'We're going up the line where we can see them before they see us,' Scoville answered. 'It ain't that I care a whole

"YOU'LL FIND THAT I'VE GOT THE DOPE ON MR. MACHADO, ALL O. K."

lot — only the place where I want to camp is due south of here, and I don't want to have to outrun the whole Spanish army eastward and then circle back eight or ten miles to find my roosting-place.

"'Weber can stay here and look out for the train. He's got sense enough to run when a run's right. I guess he can slide through the brush about as swift by hisself as he could with four of us stepping on his heels, anyway.'

"Weber gave him one contemptuous look.

"'Bessimist!' says he, 'Bickles!'

"It certainly was dog-goned white of 'em to stay on their own side of the track. Any man what was ever hot-footed through the tall uncut by a bunch o' rowdy rough-necks can tell you that this here idea of blundering onto a row of rifles is entirely a vulgar and poisonous proposition. So there being absolutely nothing to hinder us, we eventually went and took a look at that armored train. Then we all sat down. Scoville looked her over a bit, and he says:

"'There she is, Reese.'

"'Say, Britt,' says I, 'there she is. That's her.'

"'Aw, the dooce! You don't say. I thought that there was a pair o' gum boots.'

"'Engine, box car, flat car, caboose,' says Scoville. 'Plated six feet high with boiler-iron, loop-holed for rifles, loaded with feed and ammunition, steam up and her safety-valve a popping off, and not one soul aboard, so help me, Moses!'

"'Don't overlook them twenty-five gentry standing along the shady side of her,' says I.

"'Nor a hundred and fifty more strung along the dump below her,' Britt cut in. 'But at that, she's our train!'

"'Got 'em again, ain't you?' says I. 'Did I hear you say she was our train?'

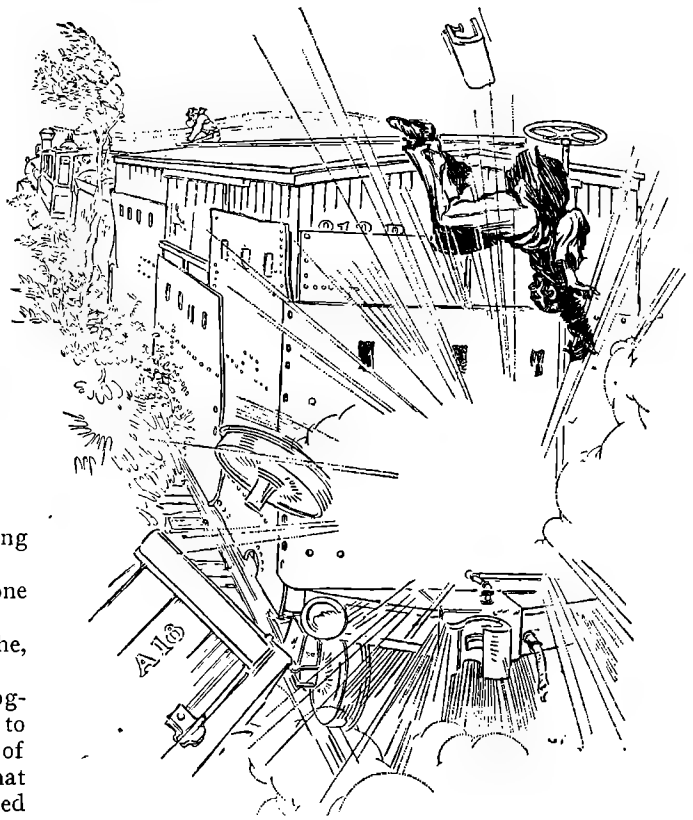
"'That's what I said.'

"'All right, Dopey. You can have her.'

"We wrangled a bit and then Britt promulgated the following nutty notion. To my mind, it had the fifth essence of foolishness skinned plumb.

"'I tell you, boys,' says he. 'We've got the dope on 'em forty ways from Sunday, and if we let this here opportunity get away from us we'll be yellow dogs. There they've got all their dead-lights on that flight. We hop aboard the train, three of us shoot up the guard, Reese pulls her out.

"'The first time one o' them ginks hears a .45 buzz past his receiver he'll run plumb to Spain. Before that bunch along the track realize what's going on, we've brushed by 'em like a pay-car pass-



"DELGADO CAME WHIZZING OUT OF THE FIRMAMENT."

ing a tramp; and they've got no more armored train than a fish has feathers.'

"'Of course they won't shoot,' I put in, sort o' sarcastic.

"'Not through that armor,' Scoville gets back.

"'Say, look here,' says I. 'Do you two apple-knockers actually figure on riding that train out o' here?'

"'Sure.'

"'All right, boys. Every fool to his own foolishness. I'll help you do it, simply to prove to you that it can't be done. Me'n Britt to the engine, Delgado to the flat car, Scoville the caboose. You're game? Le's go!'

"In ten seconds we reached the train. Britt no more than hit the engine than he ran his rifle over the tender and, as I reached for the throttle, *crack—ow!* he cut down on a little flop-eared, tailor-made lieutenant and shot the whole top out of his new hat.

"That individual made some kind of a remark to heaven, and took it north on the air-line without even looking back. Before Scoville and Delgado really got started the other twenty-four were running him neck-and-neck and I had her on the move. Britt ducked into the cab.

"'Jerk us out o' here, Reese!' he squealed.

"Feeling the wheels grip, I pulled her wide open and we jumped at the gang along the dump like we were shot out of a gun.

"Surprised? Them galoots were so surprised that if Delgado hadn't heaved a .45 past their snouts they'd be in a trance yet.

"'Get *down!*' yells Britt, and as we went to the floor—*Pr—r—row!* they popped it to us.

"Bill, the amount o' glass and splinters and chunks of coal them fellows knocked off o' that train in the space of two hundred yards, was a holy fright. And noise? When they finally got their magazines empty the comparative silence was so pronounced that you could hear it. As we slid away I looked back and seen 'em jumping up and down, shaking their fists at us like crazy men.

"'Aw, peevish! Peevish!' says Britt. 'They look sort o' irritated about something.'

"'Mr. Britt,' says I, 'we've come to bury Cæsar, not to praise him. Will you kindly poke your nut out o' that window and give Mr. Weber the high sign, before the durned Dutch yokel blows us plumb off o' the earth?'

"As I slowed her down to the place where the track was mined, everybody had his head stuck out to locate Weber. Finally Britt saw him.

"'Hey! Weber!' he sings out, waving his hat. 'It's us. Don't shoot!'

"'D'ye see him?' calls Scoville.

"'Yes. He understands. It's all right.'

"'All right, Reese,' says Scoville. 'Pull her across.'

"I guess I started her up a little faster than Weber expected. I know we got the box car and engine clean across, and Britt was still waving when—*whif—f—oom!* Dust, smoke and cinders spouted fifty feet into the air. The flat car reared up in the middle, broke in two, and rolled off the dump.

"Amid a shower of bolts, splinters, and Mauser cartridge-clips the front end of the caboose slid easily off into the hole and sat there like a big, awkward cow. As I glanced around, Delgado came whizzing out o' the firmament and hit the ground like a ton o' brick. I started toward him, but Scoville waved me back.

"'Back to the engine, Reese. He never even knew what hit him.'

"Just then Weber's rifle popped. As the bullet spatted into the dump, we saw a spot of smoke and, under it, the faint flicker of Weber's legs going south.

"'Aw, you're making a brilliant retreat, ain't you—you oak-headed Dutch—' squeals Scoville, shaking his fist at the jungle.

"'To the engine!' yells Britt, 'le's take what's left and get out o' here. For Heaven's sake, listen to that firing!'

"I noticed, then, that the Spaniards were handing Machado one awful package of Mauser.

"'Yes,' says I, 'le's get out while we can. I think they're flying the colonel's kite.' At that, Scoville hops onto the car.

"'Give her the juice,' says he.

"You talk about your record runs! I jammed the throttle into the last notch; I gave her every pound of steam that was in her. For a moment she struggled and

fought against her own weight with the fury of a trapped tigress—a writhing column of smoke above her, beneath her a stream of fire, and then—

"Right and left the jungle broke up and steamed away in a jumble of little hills, scurrying around each other like rats. Rocks and trees jumped up, gave us a glance, and flitted past. The track ahead was a hurrying blur of brown, double-striped with a shimmer of gray.

"Above the clang and clatter of her running-gear sounded the *rack—rack! a—rack—rack! a—rack—rack!* of her wheels hitting the joints. Her funnel roared like a tornado, her cab was a madhouse of spattering cinders, and the wind was whizzing through her broken window-panes.

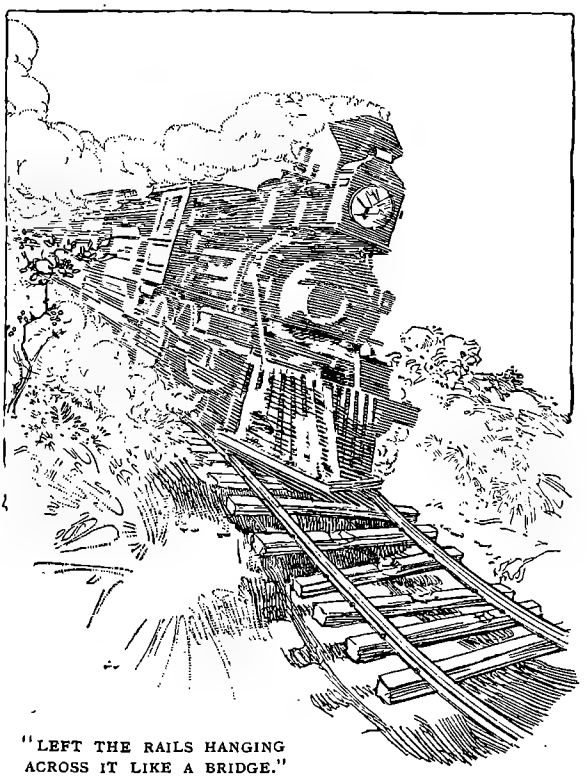
"I've coasted 'em down the long grades of the Appalachian foot-hills so fast that you had to look twice to see 'em, and slammed across the Kansas prairies neck-and-neck with the wind, but, suf—fering Jupiter! this durned old rattle-trap was a perfect cyclone of steam and steel.

"Without one touch of brake or throttle we hit the curve like we'd been flung from the clouds. For an instant she tottered and bucked, lurching from rail to rail, and then, as we skidded into the long bend along the creek, I looked up and saw Machado's jack-rabbit regiment streaking it to the east with the Mausers kicking up the dust all around 'em, and away down in the rear, behind the railroad dump, Machado and the general staff nervously swinging into the saddle for a run.

"I don't know what made Britt start swinging the bell. I know it attracted their attention, and as we flitted past one big fellow he filtered a load of buckshot in through the window and pretty near got both of us.

"'Pipe down on the monkey business, Britt,' I yells. 'This ain't no picnic.'

"'Well,' he grins back, 'I don't want our own comrades to run over us.'



"LEFT THE RAILS HANGING ACROSS IT LIKE A BRIDGE."

"Before he quit talking there came the bellow of a field-gun up in the brush and a shell whizzed over us, sputtering like a wet snowball. One look at that battery was enough for me.

"'There, idiot!' I shouted, 'you see what you've done?'

"'What?' says he—and *bang! bang! Whop—whop—whack! Whoof!*

"One of 'em fanned through the tender, scattering coal all over the island of Cuba. The other ripped a tunnel through the road-bed ahead of us and left the rails hanging across it like a bridge. Britt took one look at the ground flickering past us and turned white. I turned my head away and we smashed into it. She gave one sickening lurch to the left. I heard the crunch of her tracks as she bounded over and righted, snatching the box car clear of the sagging rails, the crash of her wheels bumping the cross-ties.

"There was a shock and a roar forward, and, as the pony trucks toppled out over the embankment, her boiler plunged deep into the road-bed, hurling

me through the window. As I crashed into a mat of underbrush, the box car skated across the wreck and came reeling at me like a thing of life. Even yet, when I take a few too many, that box car chases me all night long.

"Johnny Britt? To this day Johnny Britt can't tell you when nor how he left her nor where he landed.

"As Britt dragged me out of the brush, Scoville dropped out of the box-car cool as ice.

"'Hurt, Reese?' says he.

"'Not so badly,' I answered, 'but what I can outrun anything in this bunch.' And lemme tell you, Bill, they didn't lose any time trying me out.

"That fight queered the colonel's cabbage. The insurgents bounced the old chromo so hard that he splattered."

Reese paused.

"By the way, you'd orter remember that fellow Britt."

"I? I never heard of him before."

"Don't you remember the kid that tried to stick us up down at the Acme that time?"

"What?"

"That's him," chuckled Reese. "Le's go'n get that drink."

WHEN RULES WERE SCARCE.

BY E. A. SPEARS.

"THEY are always telling that it is better on the railroad these days than in the good old times," said the old conductor, "and in a way, life on the roads is better than it used to be, and in another way, it isn't. Things used to go along in an easy manner and you didn't have to use a great deal of brain power.

"Why, not much more than ten years ago, a crew stopped a freight-train down at Sherburne and went to a dance, and were there an hour or more. To-day, if a train is five minutes late, you get a telegram which runs like this:

"'Please advise us why No. X was late.'

"We used to stop trains at good swimming-holes along the way and go in swimming. That's a fact. You can see life was a bit easier then.

"Not a great many years ago, they could ditch a freight-train forty cars high, set them afire and go on with the rest, and nothing much would come of it. To-day, if you bust the knuckle you've got to tie a tag to it and send it in along with a letter telling how it happened.

"When conductors had it in for the engineer, he would hook onto thirty cars—a good load at that time. It would make the engineer mad. The conductor would report that he had hauled fifteen cars, and the head office wouldn't know the difference. The next day the conductor might take ten cars and report that he had taken fifteen, and thus juggle the figures as he liked.

"It's different now. The office hands you out a fistful of bills and says, 'Take those cars to Station Z.' You take them all and report at the other end that you have delivered them, and you hand over the bills with the number of each of the cars.

"In the old days, you wouldn't pass a train in a hundred miles, perhaps, and you didn't have to know a great deal about the road.

"But it isn't such a cinch now. You must know all the trains on the division, and, practically, at what time each one will be at each of the stations. You must know every inch of the track, the grades, curves, switches, and signals.

"You must also know the Book of Rules, keep track of the bulletin-board, know the men you come in contact with, be aware of special rules, study the mechanism of the engine, and be conversant with a heap of other things.

"You've got to be studying all the time, and, along with this, you have the manual labor to perform, heave coal if you're a fireman, work the levers, oil the engine, if you're an engineer, depending upon what you do.

"They are always telling how many got their hands and feet cut off, and how many were killed on the road. The fact is, in those days, it was the regular thing to go out half-cocked and with a half-pint in your hip-pocket. A good many were drunk when they got hurt. To-day, if they even smell the trace of a drink on your breath, you get more than a cross-eyed look.

"Rule G, on the New York Central, says that a railroad man entering a saloon is sufficient cause for his discharge. Railroading is a strict business to-day, and, in some ways, the men had an easier time of it some years ago."

The First Railroad Across South America.

BY GEORGE W. GRANT.

THE proud peaks of the Andes that for years have defied all efforts of man to gird their lofty summits with rails of steel, have at last succumbed to the unceasing pound of compressed-air drills and the rending, tearing force of high explosives. Where, from the beginning of time, silence has brooded over the fields of eternal snow, the shrill whistle of the locomotive and the shriek of steel on steel is now heard—triumphant battle cries proclaiming that man has won another battle against the relentless forces of nature that block his way to progress and civilization.

The history of the Trans-Andean Railroad is a story of human toil and suffering. Scores of lives have been sacrificed and failure upon failure recorded, but with a stamina and grit that is found only in heroes, the men who held in their hands the destiny of a continent have again and again flung their forces against the cruel mountain steeps, sometimes to pause, blinded and bleeding, but only to go on with renewed vigor. This finally won out, and the Trans-Andean system stands, to-day, a monument of human perseverance and ingenuity.

How Nine Days of Travel Have Been Cut Off Between the Pacific and the Atlantic Ports of South America by the Most Strenuous Railroad Building Ever Known in History.

SO far away that very few of even the best-informed practical men and scientific experts in this country or in Europe know much about it, one of the most remarkable railroads in the world has just been completed. This is the Trans-Andean Railroad of South America, opened for traffic early in the spring, after thirty-seven years of construction.

Making its way over the worst mountain ranges that steel rails ever climbed, planned with terrific grades that cost might be reduced, and the system prove a success commercially from the start, it joins the east and west coast of the southern continent, extending in a straight line from Buenos Ayres to Valparaiso.

The schedule-time of through trains from ocean to ocean will be twenty-nine hours.

There are many South American railroads in operation. The Argentine alone has 14,000 miles of them across the pampas or prairies, besides its 700 miles of tracks reaching to the slopes of the Andes, and 1,000 miles of them stretching north of the boundaries of Bolivia. Bolivia has what is probably the costliest railroad anywhere — a mountain line up among the northern Andes that has never paid.

All in all, however, the total mileage below the Isthmus of Panama amounts to scarcely a seventh of that of the United States, Canada, and Mexico. The Trans-Andean Railroad is the first transconti-

nental line in the entire southern hemisphere, for Africa thus far has none.

New names are now being added to the history of railroading—names that in later years may be as famous as those of the men who, when the western section of the United States was still the Far West, in spite of every obstacle, solved the problem of girding the North American continent from shore to shore; names such as Theodore Judah, Leland Stanford, and Collis P. Huntington. What these men did in the sixties has again been accomplished in this new Atlantic-to-Pacific line, 882 miles long, with a mountain section, containing 160 miles of steep, winding grades.

C. P. White, of England, was the man who took up the work when the original projectors, John and Matthew Clark, were unable to finance it any longer, finding, after twenty-five years of experiment and toil, that no investors could be induced to put money into their engineering theories.

The Master Minds.

After six years as resident engineer, with the knowledge that his plans were working out to perfection, Mr. White broke down, his eyes becoming seriously affected by the snow glare of the Andes, and his health generally giving way under the strain.

Frank T. McGinnis, an American engineer, who succeeded him, pierced the last foot of granite in the Summit Tunnel, thus joining the Argentine and Chile, and finishing up all the work with the exception of the clear-up.

Under White was the German engineer Hummerson, who has since retired, and Bertram Norton, an Englishman.

No one has ever estimated the vast sums that John and Matthew Clark spent in attempting to drive a railroad over the Andes. It was simple enough to build along the Argentine pampas, where cattle, wine, and wheat furnished the bulk of the freight business, and the route from the Chilean coast to the Andes also was an easy matter. But when it came to the stretch that is less than a hundred miles in an air-line over the mountains, the years went by, and a railroad was as far off as ever.

By vast efforts, the lower slopes were finally conquered. In 1903 there were forty-three miles still uncompleted, however, between the Chilean and the Argentine terminals, with all the heavy mountain work between practically untouched.

The First Failure.

The Clarks' plans was a railroad in spirals, burrowing through the mountains thousands of feet below their summits. In this way they intended to do away with the enormously heavy grades that would otherwise be necessary for at least thirty miles. Driving the road through the mountains, the snow problem would also be eliminated, they argued, for at least five months in the year the coach road across the frontier is made useless by snow avalanches and torrents of mud from the precipitous peak.

The wealth of the mines of Golconda poured yearly into this spiral construction might have made such a scheme possible. Most capitalists, however, while willing to take big chances, did not see it in the light of a good investment; but, before the spiral idea petered out and other interests replaced the Clarks' backers, $3,000,000 worth of electrical machinery for the work was carried up into these mountains on mules and an army of Chilean peons put to work.

All the machinery is there yet, including a number of dynamos, electric drills, and turbines. An engineer who has recently been over the work stated that there was easily $75,000 worth of copper reposing on the mountainside.

With all this nothing was accomplished. The Clarks bored in ten or fifteen places, and then gave up.

White Takes Charge.

White took the bull by the horns. The London houses of the New York firms of W. R. Grace & Co. and J. P. Morgan & Co. were then financing the undertaking, and had contracted to join the two lines of road that stuck ineffectively up into the mountains, the Chilean government guaranteeing the interest on the bonds.

White jammed the road through, caring little for the steeps, forcing it over

the mountains in the shortest, simplest way. The Oroyo Railroad, the famous Peruvian road already mentioned, has a great many switchbacks. Construction of that sort, according to the ideas of this master engineer, was too costly to be considered. Even a one-meter road begins to run into dollars very quickly when its tracks double upon themselves many times.

Therefore, White ran the Trans-Andean road up the precipitous barrier on the Chilean side as a railroad has seldom been run before, and never before over such a distance.

He practically ignored grades. For mile after mile of this mountain section the grades he planned and built are eight per cent. This means, to the man riding down, that the track drops away so fast that a few feet ahead it literally disappears, so far as the eye can see. In ordinary railroading, even in very mountainous districts, the maximum grade is but four per cent.

Under ordinary railroad conditions such a line would not, of course, be practicable. By making the steepest portions a rack road, however, even heavily loaded freight-trains can readily negotiate the grades. The rack comprises a cogged track, into which mesh specially cogged wheels upon the engine. Thus the train is prevented from slipping back, and the cogged wheels get a purchase that enables them to climb a very heavy grade.

The operation of the rack system may well be understood by those who are familiar with the railroad up Pike's Peak. The Trans-Andean road is very similar. The engines have two sets of cylinders and rack-wheels, beside the ordinary driving-wheels, which work simultaneously; and, notwithstanding what seems a somewhat complicated mechanism, the trains are able to make close to twenty miles an hour. The engine enters the rack with scarcely a sound.

Peons and mules are the real forces, without which the boring of the fifteen tunnels which occur in the thirteen highest miles of the road would have been impossible.

About 800 men have been at this work for the past seven years, ever since the new engineering force climbed into the saddle and mounted from Los Angeles on the Chilean side up the mountains along the River Aconcagua. That has been about the average size of the construction-gangs, but does not include the men in the swamps cutting timber for the false work, nor the men scattered over the near-by country buying mules.

Carrying a Railroad on Mules.

The Chilean mule has been nearly as great a factor in the construction of the ocean-to-ocean railroad as has the peon. Small, strong, patient, unlike the big Missouri mules, but full of energy, these little animals have for the past seven years been the advance guard of the railroad as it climbed over the mountain-tops.

A mule's load averages about 150 pounds, and tons and tons of heavy machinery, to say nothing of timber and supplies, were transported in this manner. The hard work killed close to 200 a month.

The tunnel work meant much complicated machinery that had to be hauled up the mountains. If a mule could not carry a part, it had to be dragged by a team of mules, or, at the worst, pinched along with iron bars.

Pinching consists of prying underneath the mass to be moved with crowbars and advancing it inch by inch. Sometimes, in mountain railroad work, there is no other way. The mules did most of the moving, however, and the triumph of this vast and revolutionary enterprise belongs to them in part.

One victory of the little beasts was the carrying of four three-cylinder, 120 horse-power oil-engines, and one of two-cylinder, 80 horse-power, that drove the air-compressors for the tunneling at the mountain-tops. Three of these engines were moved, with vast toil, to the Argentine slope, while two were placed on the Chilean side.

The larger four of these had to be knocked down into 800 pieces. It took one man and four assistants three weeks to put each engine together.

The peon workmen received six to eight pesos, $1.50 to $2.00, a day. A curious labor feature was that many of the gang-bosses were Italians. These Italians have proved more successful bosses than the Chileans, and were hired wher-

ever possible. They received ten pesos, $2.50, a day. There were practically no Italians at all working on the road as laborers.

Peons subsist upon potatoes, beans, charcha (dried cow's meat), and drink their native wine. On the march of the railroad they have been living in camps of wooden buildings covered with corrugated iron.

Obstacles Met With.

The dangers of building a railroad up the Chilean slopes of the Andes, the rest of the work having been, comparatively speaking, child's play, have been little told; but we have numerous instances of men working on narrow shelves being swept off into the river below, by snow-slides, or engulfed in a torrent of mud and stones. The decrees of fate are accepted without complaint by these Latin-Americans, and as their companions disappear, one by one, they simply cross themselves, say a prayer, and go on with their work. Oftener than otherwise bodies are never recovered.

None of the figures of the death rôle can be approximated. All that is certain is that the work has gone doggedly on, and there is small fear that the Trans-Andean Construction Company will not collect the million and a half dollars bonus due it for finishing the road ahead of contract time. Heedless of everything but that of moving forward as rapidly as possible, engineers, gang-bosses, and workmen have striven with the precision of the most well-drilled armies in the field.

No part of the world more cruel, from the point of view of the railroad builder, can be imagined. Nearly 12,000 feet above sea level, with the cruel snows that block the coach road over the Uspallata or Combre Pass between Chile and the Argentine to contend with, and avalanches of snow and mud always menacing, the situation is dangerous in the extreme. There is a persistent high and biting wind, and the snow glare grows fearful to the eyes after a time. Shortness of breath and other afflictions of high altitudes add to the list of sufferings.

White, the chief, was not the only one who was afflicted with snow blindness. It has been a common malady upon the Trans-Andean, and scores of engineers have had to give up their work for this reason.

In no other branch of human effort does ingenuity, forethought, and the power of adapting circumstances to ends, count so much as in the construction of a big mountain railroad.

One instance of where an engineer's keen mind saved a vast quantity of hauling was shown by a scheme he devised for moving supplies. The point he desired to reach was almost directly above, 800 feet higher up the mountain, an almost vertical climb. The trip by the coach road required a détour of several miles, and by the railroad line, partly constructed, it was almost as far.

The engineer did not hesitate a moment. A glance showed him his opportunity. Though from point to point it was almost a vertical air-line, he managed to build an inclined plane road up the 800 feet cliff. Two box cars balanced each other on this, one ascending while the other was descending. For months the box cars on the cable carried machinery, food, oil, timber, doing away with a haulage of at least more than two miles. Considering the vast amount of work it did, this temporary inclined plane road cost almost nothing.

What One Engine Did.

Engineering experts interested in the progress of this Andean road have not yet ceased to talk of an American engine that made a wonderful freight carrying record from Los Andes, the Chilean end of the road, to the mountain-line terminus.

This engine is said to have done the bulk of freight carrying for the construction work. It handled enormous loads over sections of track that are now using the rack, and did so without any cog-wheel traction devices whatever. It was a regular locomotive in all its details except in its engine parts. These consisted of a three-cylinder vertical engine bolted to the side of the boiler with its main driving shaft connected by universal joints to all the trucks of the engine and tender, thus making every truck a driver.

It did the trick, however, and did it

well. The history of the Trans-Andean Railway is filled with incidents such as this, which go to show how the problem of half a century was solved in record time. It was a big job, the biggest sort of one, and carried to completion in spite of the thousand and one difficulties encountered. Even the timber used in the tunnel building due to the quick-rotting characteristics of the native redwood, had to be brought down from Puget Sound.

There are few bridges along the line, but none of them are very remarkable. White's plans kept the road hugging the cliffs, and closely notched deeply into the sides of the mountains, finding a foothold wherever possible; digging, blasting, and here and there bridging a chasm with a space of concrete; reducing expenses and getting results at one and the same time was his object.

Wherever he had to he drove a tunnel. The Summit Tunnel is the masterwork of all; two miles long, directly under the boundary of the two republics, and 3,000 feet under the mountainside. Precisely over its center, by a peculiar chance in the Uspallata Pass, is the wonderful bronze statue of the "Christ of the Andes," erected by Chile and Brazil jointly, to symbolize an eternal peace pact between them.

One piece of bridge-work which deserves attention is the "Salto Soldato," or Soldier's Leap. A single concrete span, which resembles the center of an hour-glass, the cañon above and below having the form of a double bottle.

American rolling stock, American rails and ties, are to be used on this road. It must be said, however, that in the construction work some Belgian engines have given famous service.

Thus the Trans-Andean Railroad has become a reality, and the time it takes to travel from Buenos Ayres and other cities of the Argentine to Valparaiso, Santiago, and all of Chile has been cut from ten days to twenty-nine hours. Up to now, unless one cared to ride a day and a half on muleback, or in a jouncing coach over the Uspallata or Combre Pass, and this was only possible in the late spring, summer, or early fall, the only convenient way was to take a steamer around Cape Horn. Such a journey overland was too venturesome to tempt many travelers to make it, and the moving of much freight was impractical.

A Boon to Travelers.

The new road also cuts off the same number of days between Chilean ports and New York, London, and Hamburg. Hence its commercial advantages are enormous, and will rapidly grow even greater. Building the mountain stretch has cost over six million dollars, but it is well worth it.

It shortens the route between Europe and the east coasts of South America by about 1,000 miles. From ocean to ocean it is 888 miles long. Even in its uncompleted condition, with the necessity of making the journey over the mountains by muleback or by stage, the traffic in 1907 amounted to 244,000 passengers.

On the lower sections the tunnels were driven by hand. There are twenty-five of them in all. The locomotives which are to be used are of the combined type, being equipped with rack wheels, and weigh about 100 tons each. They were decided on after much experimenting. The contractors believe they are the heaviest meter gage engines ever built.

Wheelwright was the name of the man who first proposed the road. He sent a communication regarding it to the Royal Geographical Society of London just fifty years ago. But Wheelwright was only a dreamer. He is all but forgotten now. Coupled with the history of the Trans-Andean road will go the names of Grace, Morgan, White, and McGinnis.

South America has long been waiting for such a railroad. It has many lines of tracks, but they only fragmentarily serve the needs of trade. The continent's great volume of commerce is principally carried on over its vast network of rivers, in semi-primitive fashion. Huge sections of territory yet await exploration in Brazil and Bolivia. Here is still the great field of river navigation, the Orinoco on the north, the Amazon, the Parana, and the River de la Platte further on the south, the Magdalena in Colombia, the Rio Negro in Southern Argentina, and the San Francisco in Central Brazil. The Amazon system alone contains 15,000 miles of water that is commercially navigable.

Taking Orders from Death.

BY PETER MULLIGAN.

WHEN coupling cars meant holding up a link with one hand and dropping a pin with the other, while the draw-heads tried to crush out your life in their vise-like grip, being a member of a train-crew was on a par with wearing the khaki and letting Molos take pot-shots at you with their rusty Mausers.

Those were the days when the Grim Reaper claimed a heavy toll, and the railroad men who met death with their boots on was more than double the number in these days of the standard gage and the Janney coupler. Only men who either put no value at all upon their lives or were brave to the point of recklessness, could have stood the strain of setting brakes on an old-fashioned double-gage road with its broad and narrow jimmies jumping about in the freedom of their three-link couplings, and trying to shoulder each other off the track—which they quite often succeeded in doing.

Although the Door of the Caboose Was Frequently Hung with Crape, It Was Difficult To Dampen the Spirits of the Courageous Crews.

THE man who named the caboose evidently regarded it in a comical light. Try to think a few tragic thoughts about it, and you find it is impossible. The name is against it. It is difficult for any one to regard it seriously. There it goes bobbing along at the end of the train like an old woman shooing her chickens. Caboose!

But there was a caboose that used to make men shiver when they climbed aboard. There have been others, too, but none that sent such cascades of cold pouring down the spinal column. As it jerked forward out of the yard, with a groan, every man in it would say to himself: "I take that all back about what I was going to do to-morrow. I'll make this little run first, and then, if I am still moving around, I'll consider the matter further."

Quite a few men who carried thoughts like this with them as they pulled into the main track never did reach to-morrow, and there were others, too, who laughed at its evil record, and managed to stop short of the line.

And, at that, it was one of those absurd, old-fashioned cabooses that rocked and bumped and groaned and squealed, and seemed to have a premonition that the train behind would catch up some day and boost it down the grade, making it more ridiculous and undignified than ever.

A Caboose's Grim Record.

But, of course, it did not happen that way. Premonitions are great deceivers. The man who kept off the water, because he was sure he was preordained to be drowned, got hanged, and the old caboose that expected to be lifted from behind and turned on its nose in the ditch, got mixed up in—but, wait a minute, let

the caboose come to its ignominious and well-deserved end all in good time.

It was No. 312—held in unpleasant memory—and its wheels were six feet apart, to fit the track of the Erie twenty-five years ago. This comical old piece of rolling stock, after taking home the bodies of a score of men killed in handling the train, rounded out its career by wearing mourning for a solid year.

It is safe to say that this record is unequaled in the history of railroading. It means that it was in at the death of twelve members of its crew within twelve months, as mourning was only worn for each victim one month. With four or five men in a train crew, as they used to be made up on the Erie, a toll of twelve meant more than two complete crews. In fact, it was three, as the conductor lived through it all, only to ride old 312 to a more sudden and unexpected end than any of his crews.

War could not have done worse. The same piece of crape, tacked to the door, hung there until it was weather-worn. Each time, as a month rounded towards its close, and the crew thought that at last the spell had been broken, then a crash and a groan, and 312 had registered another victim.

"I was only on her for two months at the end," said the sole survivor, in reminiscent horror, "but I saw two of the twelve die. Bennett, who began breaking with me to take the place of a man who had been killed, was climbing over an empty coal dump, known as a 'jimmy,' and was right in the middle when the train gave a jerk that opened the dump, and threw him flat on the track. The other was Cline, who succeeded him. At Newburgh Junction he was making a three-link coupling, when his foot became caught between two rails, and the train cut off both his legs. I helped carry him home—there was no other place to take him—and there he bled to death."

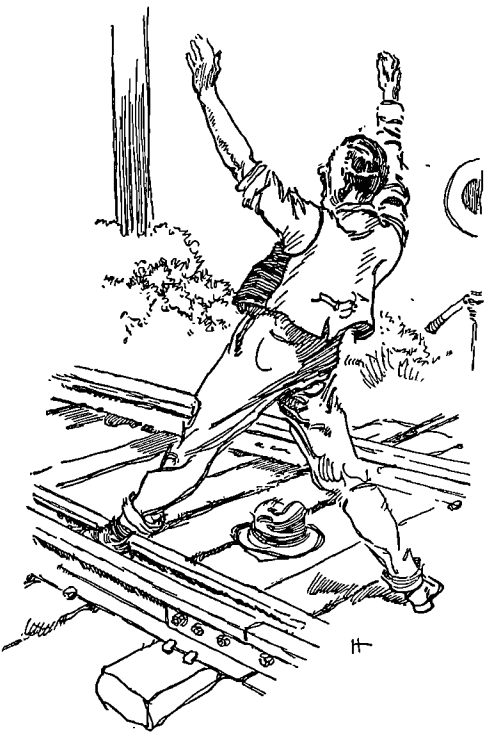
Of the other ten, six were killed making couplings, one was hurled from the top of a box car by a sudden jerk, and the other three started out from the caboose in the night to set the brakes, and were found afterwards on the track ground to pulp.

Marvin, the conductor, figured it out that he must have a charmed life, but one day, while sitting in the old caboose, an engine, which was getting ready to blow up, drew in alongside. And when it went off, like a big fire-cracker, it caught 312, with Marvin inside, and did not even leave the hoodoo.

This is the most complete, single and startling record left from the old days of the double rail on the Erie, which lasted for a period of ten years, and is the bloodiest piece of railroading ever known. Where there is one man killed on the Erie to-day, the veterans assert that there were five hundred who met their ends at that terrible time. Death rode on every train, and "they had a man for breakfast" every morning.

Mixing the Gages.

It was all brought about by a fact that is not known, even by most of the men who are operating the Erie to-day. The Erie was one of the first railroads, and was laid with a six-foot gage. Once started that way, it was extended at the same gage, and for forty years engines



THE TRAIN CUT OFF BOTH HIS LEGS.

HOOKING A NARROW AND A BROAD-GAGE.

the size of a barn-door hauled cars as wide as a house all the way from New York City to the Great Lakes.

When it was decided to narrow down, the old gage was left for the use of the old rolling stock, and cars of both gages were hauled in the same trains. Death lurked between the gages, and the men who worked those trains flirted with it every moment of their runs.

In making up the trains there was not time to separate the broad and the narrow gage cars, and they were hooked together indiscriminately. The drawheads missed each other by a foot, and to make the coupling it was necessary to use three links, or two full links and one broken link, a coupling that was called the toggle. With so much iron between the cars, when the train was taut, there often was a jump of about five feet to make.

If the cars were of the same height this was not so bad, but it was an adventure to cross if they were not. The combination most disliked was having a jimmy between two box cars. The jimmies were mounted from the side, and to reach the steps the brakeman had to let go with both hands, and throw himself forward, trusting to luck that he would land. If just at that moment the train suddenly picked up or dropped slack, that was safely the end of him.

In icy weather, in pitch black night, on an uneven track—is it any wonder the deaths were counted by hundreds?

Riding With Death.

They were gay, wild fellows who were running the Erie in those days, if the few who survived are any indication, but the accidents had a trick of happening in such an order that they did not grow hardened. As soon as one big wreck took place, there would be two more almost immediately. It was uncanny, and it sent many a train crew out for a run with a pretty sure hunch that some one was going to come to the end of his rope with a sudden jerk before the night was over.

The first question every train crew asked the moment it reached the end of the division, or upon appearing for work, was: "Anybody killed?" If, as was usually the case, they heard the details of some awful accident, they lost a little of their starch, and stepped lively to see if they could not prevent themselves from being counted two or three. It's all well enough to laugh at it as a superstition now, but it was too real to be neglected.

Coupling was the worst. The old pin was bad enough on any road, but hooking together a narrow and a broad-gage car was ten times as dangerous. The brakeman had to stand so that one drawhead would drive him into the other car, if he did not make the coupling right on the second, and jump back to safety. The stories of those who failed run beyond reckoning, and all have the same ghastly similarity.

Getting Rid of the Man-Eaters.

Some cars seemed to have a personal animus, and killed for the joy of slaughter. Two became notorious, and were known from one end of the line to the other. They were iron coal-dumps, standard gage, built as samples, to see how they would work in comparison with the old-fashioned wooden jimmies. Fortunately no others were ever put into service, for they could hardly have had

bloodier careers if they had been built as engines of destruction.

The dead wood at the end of the steel dumps was just narrow enough to miss the coupling on the jimmies, but wide enough to pin a brakeman fast. At first, the danger in them was not realized, but it was noticed before long that a man who was caught between one of them and a jimmy did not get off with a mere squeezing and a dislocated liver. It always killed.

Then word was passed along the line that they were as dangerous to handle as dynamite, and an unspoken agreement was made to get rid of them.

They began to have accidents. They did not seem to be able to keep the rails, and now and then, they turned up unaccountably in the ditch. But each time they were jerked back, and put into the service again. And still their bloody record grew. Inured as the crews were to accidents, they hated to see those dumps in the train. They knew it meant trouble.

A flagman, a white-haired conductor now, solved the problem. The two dumps were together one night, and were being shoved up an incline that ended in a sheer drop. The flagman saw the chance. When the first was at the right spot, he signaled to give it an extra shove, and over it went, tearing away from the coupling, and smashing into an unusable mass.

"Just one more little shove," he cried to the engineer. "Ah, there she goes, and that's the last of those man-eating dumps."

Couplings had to be loose, otherwise the cars would have been jerked off the track sideways. At the best, the strain between two cars of different gages was all the rails could stand. When a train started forward, and couplings went taut, it sounded like a rattle of musketry. Each car received a jolt more violent than the one before, and by the time the caboose was reached it was almost pulled in two.

As the track was full of little pitches, every now and then an extra little jerk would pass through the train, even in motion, and old timers tell many a tale of men, who were not expecting it, being whirled from the top of a car. But much more common was death from the breaking of a coupling. When the strain slackened, and was picked up again suddenly, a pin was liable to jump out, or a coupling break. If a man was passing from one car to another at that inauspicious moment, down he went between the wheels.

How Sully Disciplined Them.

Stories that are much more easily told are of the funny things that happened. There was one engineer, Pete Sully, who made use of the slack for his own purposes. He was older than most of the men, and had an idea they needed a little

TRUSTING TO LUCK HE WOULD LAND SAFELY.

disciplining. As he could not tell what was going on in the caboose, he would give it a little jar now and then, just to keep the crew on the watch. Occasionally he made a random shot that went home.

Dallas Washer, later a victim of a broken coupling, had a leaning towards pie that struck Pete Sully as inordinate, and he always had something to say about it. If anything went wrong, he laid it to Washer's fondness for pie. One night, as they were whirling through West Paterson on the late freight, he turned around and noticed that there were no tail lights on the train.

"There now," he said, "Washer's at it again. I'll just jar him up a little, so he'll know I'm thinking of him."

Washer was, in fact, in the caboose,

HE BURIED HIS FACE DEEP IN THE THICK BLACK PASTE.

holding in both hands a whole thick, juicy huckleberry pie, and he was just putting it up to his mouth hungrily when the jar came. His hands flew up and his head down, and he buried his face deep in the thick black paste.

Sully, of course, heard about it, and it inspired him to other efforts. Trapper Winfield, later a widely known Erie conductor, but then a greaser, had a habit of leaning over the water barrel, and sticking his head out the window at times when Sully thought he would do better to be at work. But Winfield only laughed at Sully, and leaned over the barrel as usual. Sully planned his lesson. Waiting until the train was just starting on a steep down grade and all the cars were being carried forward with an extra impetus, he threw on the reverse, and took up about eighty feet of slack. It came so suddenly that Winfield did not have time to draw back. The jar tore the water barrel loose from its fastenings, and over it went, sousing Winfield to the skin. Sully saw his head disappear as he went down to the floor, and cried out:

"Ah, ha, my fine boy, your roosting place is gone."

But Sully's particular antipathy was a dandified chap who lived in Paterson, and ran down to New York several nights a week. The freight that Sully hauled left Jersey City after the last passenger-train, and this man made a habit of returning just in time to catch the freight. He even went so far as to obtain special permission from the company to ride on that freight. Sully eyed him with disfavor from the start, and questioned the crew as to where he was in the habit of sitting, whether he went to sleep, and, if so, his relative position to walls, benches, and tables.

Punishing a Passenger.

Waiting until one night when the Paterson man had on his evening clothes and his high hat, Sully put his information to use. According to his custom, the passenger leaned back in a chair, and braced his feet against the forward end of the car. In five minutes, as usual, he was asleep, with his head between his knees, and his high hat pointed directly at the wall.

The train was extra slack that night, and when Sully threw on the reverse it jerked the caboose forward with a rush, and brought it to a dead stop. Sully was entirely successful. He drove the Paterson man's hat clear up to his chin, and they had to cut it off.

The jimmies made the trains particularly loose, as they were short, and had

only single trucks. They were also highly sensitive, and half a dozen of them between two heavier cars would at the least provocation jump over each other like a flock of sheep.

Mose Jordan, formerly yardmaster at the Jersey City terminal, but a brakeman and freight-conductor in the days of the double rail, gave some idea how it was from the stories he told.

"One day we were coming through the Outerkills," he said, "picking up empties at all the side tracks, and before long we had nineteen jimmies in a string. This left a lot of slack in the train, and every time we stopped or started it sounded like a roll of thunder. I was in the cab with Billy Johnson, the engineer, and he was picking up and letting out on the speed rather recklessly.

When the Jimmies Jumped.

"The trouble came all at once. I had just turned around to see what had become of Carter, my rear brakeman, when Johnson threw on the reverse a little too sudden. Quick as a wink the whole train shortened up, and the heavy cars in the rear set the jimmies to jumping. Carter was right in the middle of one when it broke its coupling, and made a flying leap to the second one ahead. At every jump he landed on top, and after some of the finest gymnastics you ever saw, there he was twenty-five feet in the air on top of the pile of nineteen jimmies.

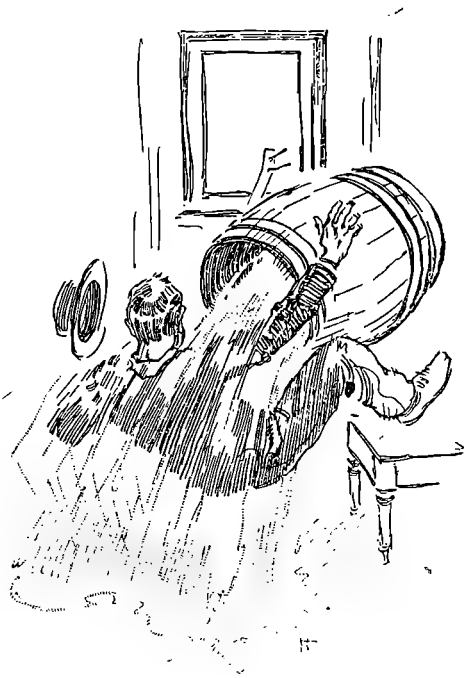
"It was right in front of a station, but the operator lived on a farm half a mile away, and I started across the fields to get him. Just about the time I was all out of breath from running and cursing the whole race of operators at the same time, I tripped on a pumpkin-vine, and there I lay, swearing I would never run a train again in my life, when I heard Carter perched up there in the air give me the laugh. Johnson was another of those laughing fellows, and there the two of them sat, just watching me, and enjoying it, while I scared up the wrecking crew. It made me hot, and I got up and came walking slowly back.

"'Now, Mr. Carter,' I said, 'you can just come down off your jimmies and go get your own wrecking crew.'

"Johnson piled up so many jimmies," Jordan went on, "that he gradually grew more careful. And after he had smashed in the end of his own nose for being too free with the throttle, no matter what was in the road, he would not pull up in a hurry.

Ditching a Section-Crew.

"Coming around a curve one day, he saw the section-crew on a hand-car ahead,



THE JAR TORE THE WATER BARREL LOOSE.

but he had no intention of jeopardizing his jimmies for them, although they thought he had. It didn't kill any of them, but it dumped the whole outfit into a swamp. Johnson watched them go, and it struck him funny. So he sat there, and laughed, and kept on laughing until the section-crew got sore. Since he had hurt his nose, his laugh also had a peculiarly unpleasant sound. There was an old Irishman in the crew, and he was sitting there in the swamp, trying to knock the dents out of his dinner pail.

"'Laugh on, you can afford it, ol' flat nose,' he said, as if he had not just missed being run down, 'but if you had to put out a good dollar fer a new bucket, you'd

be laughin' on t'other side o' yer face.'"

When all the broad-gage rolling stock had been worn out, the six-foot gage was torn up. Aften ten years, beginning in the middle '70s, and ending in the middle '80s, there was to be an end to the slaughter. So many men had been killed and so many families had lost a father, or a son, during the reign of terror, that the new régime was greeted with wild rejoicings. Nowadays, when month after month passes without a single man being killed on the Erie, and the use of all the latest safety devices, it is difficult to realize what this meant; but the men who were running trains at that time celebrated the occasion as if it were the close of a war. Trains were cheered as they passed through towns, and the railroad men themselves saw the last of the double rail with profound thanksgiving.

THE PLUG-HAT GANG.

Bush Boyd, a famous old engineer of those days, wanted to do something on this occasion that would make it memorable, and be told about for years to come. He set about making his preparations secretly, and even the other men on the train did not know what was in store until the morning they pulled out of Port Jervis, on the New York division, with the first all-standard-gage train.

Just before they started, and while the whole town stood around to cheer them off, he got the crew together, and gave each one an enormous, bell-shaped beaver hat. It was a sensation. News of the "plug hat gang" went ahead of them by wire down the Ramapo, and the Delaware and the countryside turned out to see them pass, with Bush Boyd's beaver and a cigar a foot long sticking out of the window of the cab.

A SCHOOL FOR STOKERS.

THE Buffalo, Rochester and Pittsburgh Railway has sent out a lecture-car for the purpose of instructing the firemen along the line in the art of stoking.

Mr. E. G. Kinyon is in general charge of the car.

The lectures are given morning, afternoon and evening. They begin with a somewhat elementary explanation of the process of combustion and conclude with a lecture illustrated by stereopticon views of the fire-box as it is seen under various conditions.

All the so-called "diseases" of a fire are thus illustrated and explained, including the fire that is over-fed and poorly stoked, fires in which clinkers have formed, and the ideal fire burning without smoke because sufficient air is supplied to give the oxygen necessary for combustion.—*The Railroad and Engineering Review.*

An engine wouldn't be any use if it couldn't run backward. Don't mind a reverse.—Philosophy of a Hog Head.

PRESIDENT OF THE LINE.

BY JOHN WELLSLEY SANDERS.

The Master Mechanic Meets an Old Acquaintance—and Gasps.

SYNOPSIS OF PREVIOUS CHAPTERS.

VINCENT WILSON, having risen from the apprentice shop to mechanical superintendent of the Mainland System, has discovered what he believes to be a leak in the affairs of the company, and criticizes to President Harvey Jones the action of the board of directors on voting $20,000 for certain purchases. Wilson visits a former employee of the Mainland System, "Doc" Ferguson, who imparts to him the information that Kaintuck, a former friend of both, had developed leprosy and been sent to the leper settlement at Molokai. "Kaintuck" was betrothed to a beautiful girl, Meriel Planquette, whose address Wilson is very desirous of obtaining from "Doc." "Doc" refuses to give this information unless Wilson pays him $5,000. Meriel Planquette, after "Kaintuck" had been sent to the leper settlement, married John Toylmore, formerly New York representative of the Mainland System, who, shortly after their marriage had been killed in an automobile accident. She now has many suitors, among them, Bertrand Clivers, an elderly broker, and Jimmie Winters, young and impetuous. She loves the latter and promises to marry him, but is won over at the very last moment by Clivers and leaves with him for Europe.

CHAPTER VI.

The Woman He Loved.

SO Meriel Planquette became Mrs. Bertrand Clivers. And Jimmie Winters made up his mind that he would be revenged. It mattered little to him when, where, or how—but he was going to be revenged. Clivers would suffer for deliberately stealing the woman he loved.

But Mr. and Mrs. Clivers had not gone to Europe. That was merely a bluff. It was simply intended to put Jimmie off the track. They took a spacious suite of rooms in the Continental—a great, glittering hotel on Fifth Avenue.

It was announced in the papers to the effect that "Bertrand Clivers, the eminent financier and promoter, who recently married the widow of the late John Toylmore, after a charming romance, had taken rooms at the Continental Hotel, where they would entertain extensively."

Two days after this notice appeared, Jimmie, with more courage than he ever imagined he possessed, called at the Continental for the express purpose of seeing Meriel.

That love for woman that no man can banish, when once it gets hold of him, had laid its tentacles on Jimmie's heart. He was still madly, blindly, deeply in love with the woman, notwithstanding the miserable manner in which she had treated him.

He was still mad in his infatuation. It would not wear away. No other thought seemed sufficiently powerful to crush it within him.

He must see Meriel—he was going to see her, and tell her that he still loved her, and that her husband had married her for no good purpose.

He approached the massive entrance of the Continental—his courage increasing every second.

The avenue was bright with the morning sunshine. Hundreds of gay, prosperous New Yorkers were strolling along the sidewalks—for Fifth Avenue is ever the favorite place of promenade for the New

Yorker—and, on a fine day, it is one of the rare sights of the world.

Carriages, gay with many liveries, and smooth-sliding automobiles, filed up and down, guided in the proper direction by the well-knit, military-looking mounted police that constitute one of the most prized departments of the metropolis—the traffic squad.

Jimmie Winters wondered if all the people that he saw were as unhappy as he. He wondered if any other man had nestling in his heart so cruel and hurtful a thorn.

Just then his eye was arrested by a huge orange-colored touring-car that glided up to the entrance of the Continental.

It was hardly fifty feet from him.

The chauffeur brought it to a halt.

One of the liveried attendants of the hotel pirouetted down the steps and opened the door of the car. Meriel stepped out.

She was arrayed in all the gorgeousness of the world of fashion. From her dainty shoes to her hat, she was a thing for all women to envy and all men to admire.

Jimmie hastened his footsteps. Here was his chance. Fate could not have treated him more kindly.

In another moment he was by her side.

"Meriel!" he said tremblingly. "Meriel!"

She turned full upon him. The hotel attendant who was carrying her cloak advanced as if to protect her.

But there was something in Jimmie's face that told the attendant that he was not so much an interloper as his action might indicate.

Meriel turned several colors in as many seconds, and drew herself up in all her haughtiness before she spoke.

"What do you want?" she asked.

"I want to speak to you, Meriel."

"Mrs. Clivers, please."

Her tone indicated her cold-blooded imperiousness. Clearly, she was the woman who would marry for money, who would love for money, who would give all that was nearest and dearest to her for money.

"I want to speak to you, Meriel," said Jimmie. "I want to speak to you. I want to tell you—"

His voice was trembling. She feared that he would break down and create a scene—and it would never do for her to be the central figure in a Fifth Avenue sidewalk tragedy; especially as she had reaped the goal of her desire—marriage to a real millionaire of the New York world of finance.

"Come in," she said softly.

Jimmie obeyed. He was glad that she seemed to be showing some degree of common sense. Once inside the hotel, she led the way to the oriental room—a heavily furnished, heavily perfumed, dimly lit parlor near the main office, where two people could hold a quiet conversation in a quiet corner without being disturbed by prying eyes.

Meriel picked out a large divan hung and surrounded by a mass of East Indian and Turkish trappings. She sat in one corner, partly hidden from any observer, and Jimmie took a seat by her side.

"Jimmie, what did you mean by accosting me in that way?"

"I couldn't help it, Meriel—I had to see you—I just had to."

"How did you find out that I am stopping at this hotel?"

"I read it in the papers."

Meriel brightened and smiled faintly. Clivers was a good press-agent, anyhow.

"How could you have done it, Meriel? You know that I love you—you promised to marry me—you knew that my whole life was centered on making you my wife. How *could* you, Meriel?"

The woman smiled. It was the sardonic smile of cheap contempt.

"Oh, Jimmie," she said finally, "I didn't take you seriously."

"Didn't take me seriously? After what I said—what I did! Great Heaven, Meriel, what do you call 'seriously,' then?"

"Come, Jimmie, don't be an angry boy. You will get over this sooner or later. Some nice girl will come along, and you will marry her and make her a good husband."

His hand resting on the divan was close to hers. She stroked it as one would pat a pet dog.

She arose as if to go.

Jimmie rose, too, and confronted her.

"Meriel," he said, with some firmness, "where are you going?"

"Jimmie—you fool! I must dress for luncheon."

He caught her by the wrist. His grasp

was tightened by his anger. His fingers seemed to press into her flesh like the blades of a knife. He hurt her. His face showed that he meant to hurt her—but she knew better than to cry out.

"Jimmie—don't!" she muttered under her breath.

"Meriel," he said, with more determination than she believed he possessed, "there will be no luncheon for you until you have heard me.

"You let that vile brute steal you from me! Yes—steal you from me! The dog stole you from me—and—by all that is good, he has got to pay the penalty!"

He gritted his teeth in the intensity of his meaning. He weighed each word carefully, in order to bring out their full impressiveness, but spoke hardly louder than an ordinary whisper. The other occupants of the room had not the slightest indication that anything out of the ordinary was happening between them.

"He stole you from me, Meriel—you, whom I love and worship—and he is going to pay for it! I will have revenge even if it takes my life. I can't tell you how much I hate him! I can't tell you how much pleasure it will give me to see him suffer!"

He released his grip. Meriel looked at him for a moment. If she grasped the fact that his determined face showed only too plainly that he meant every word he said, she did not give any indication.

"Good-by," she said. "I must not talk to you any more. You're a bad boy, Jimmie."

She walked away. Jimmie's eyes followed her until she had turned the corner of the hall and vanished. Indeed, she was beautiful. Such a face, such a figure, such wonderful eyes, such a fascinating manner, thought the young man—just the sort of woman worth fighting for—and fight he would.

"I wish I didn't love her so," he said to himself, as he stepped out into the main office of the hotel.

CHAPTER VII.

The Conversation in 635.

JIMMIE WINTERS dropped into one of the huge leather chairs that adorned the corridors of the great hostelry. He wanted to think—he wanted to be alone to plan his revenge.

The more he thought, the more he became convinced that he would never falter even in the slightest degree from the course of his revenge when he had it thoroughly planned.

"Even if I kill him," said the boy to himself, "I shall not care. Many a man has killed for the woman he loves. But, no—that would be cowardly."

He sank back in a reverie, heedless of the people who passed to and fro. Just why he waited in the hotel he did not know. It did not occur to him to do anything else. Some inward force told him that he had better stay there for a while. Something might turn up.

He might see Meriel again—and he might see her husband.

If the latter, he would walk straight up to him and—

He arose and walked up and down the long hall, lined with its rich and easy idlers, many of whom were gathering for the luncheon-hour. To the preoccupied youth, they were only automatic chatterboxes. If there were any pretty women among them, Jimmie did not notice them. He strolled up one corridor and down another, until finally he reached a little alcove off the main hallway.

In a corner of the alcove two men were sitting. Their heads were together, and they were talking in an earnest whisper, looking furtively about now and then, as if fearing an intruder.

One of the men was Vincent Wilson, the other was Tom Tracie—the star sleuth of the detective bureau of the New York police department.

Just what drew Jimmie Winters to be interested in them he hardly knew. Trying to appear as disinterested as possible, he took a seat near them, pulled a letter from his pocket, and pretended to read.

The other men looked at him for an instant, and then, assuming that he had no interest in what they were saying, resumed their talk.

"You say she is living here?" said Tom Tracie to Vincent Wilson.

"Yes; I am sure of it," replied Vincent Wilson. "I've traced her to this place."

"What is her married name?" asked the detective.

"Clivers," said the younger man.

At the sound of the name Jimmie gave a sudden start—so sudden, indeed, that it might have frightened the two men had they not been particularly interested in their own conversation.

They talked at length, but although Jimmie heard an occasional word or two in which certain large sums of money and "graft" and "theft" were mentioned, he could gather nothing that would give him a lead as to the direct nature of the subject of the two strangers.

Still, his keen intuition told him that it was in connection with Meriel's husband.

He must make the acquaintance of the men.

It would not do to thrust himself upon them—that would be undiplomatic.

He would wait until the proper time came. He would follow them and find out where they went, and call on them at their offices, if possible. They finally arose to go.

Jimmie noticed them as they shook hands. The elder man said, so loud that he could plainly hear:

"I am sure that we will get at the bottom of this."

They walked down the hall together, stopping once or twice to renew their talk, and when they reached the main street door they parted.

The detective turned down the avenue. The younger man went to the hotel desk, and nodded to the clerk, who handed him a key. Then he turned to one of the elevators and went up-stairs.

There was nothing for Jimmie to do now but ask the clerk the man's name. He walked up to the desk, and said hastily:

"Will you please tell me the name of that gentleman to whom you just gave his room key?"

The clerk, alive to the numerous agents and grafters and runners in for gambling-places, who frequent all large hotels, forestalled Jimmie by saying that it was not the policy of the hotel to give the names of its guests to strangers.

"I should like to know particularly, for I think that I can do him a service," said Jimmie. "My name is Winters," and Jimmie handed the clerk a card reading

"Mr. James E. Winters. Walter F. Winters & Co., Brokers, New York."

"I am Mr. Walter Winters's son," said Jimmie, to clench his identity.

And clench it he did. The name of Walter Winters stood for all that was A1 in Wall Street, and the clerk knew it. Besides, the firm had branch offices on the foyer hall of the hotel, and it would have been an easy matter to have proven the identity further.

"That's all right, Mr. Winters," said the clerk. "The man to whom you refer is Mr. Vincent Wilson. He is a railroad man connected with the Mainland System."

"Could you arrange for me to meet him?" asked Jimmie, recognizing the fact fully that his question was somewhat nervy.

The clerk was not amiss to do the well-known broker's son a favor. Certainly, there could be no harm in it. Jimmie Winters was a young man of great respectability, and, furthermore, thought the clerk, any one could not go wrong doing a favor to such a man.

"I will certainly introduce you if I happen to see him around," said the clerk, "but"—here he hesitated a second—"why not send up your card? I will phone to him and tell him who you are."

"I wish you would," said Jimmie. "I will consider it a great favor—and I shall be glad to return it some time."

"Not at all, Mr. Winters," said the clerk.

He went into the private office to telephone. Jimmie waited outside, trembling in every nerve—he knew not why.

Presently the clerk emerged.

"Mr. Wilson will be very glad to have you go up to his room. It is No. 635, on the sixth floor. Front," he continued, calling to a bell-boy, "show this gentleman up to 635."

Jimmie tried to offer thanks, but the clerk politely bowed and was gone.

Three minutes later Jimmie knocked at the door of 635.

Vincent Wilson opened it, and bade him enter. Wilson recognized instantly the young man who had taken the seat in the alcove so close to Tracie and himself, and broke the ice of the situation by saying pleasantly:

"I believe I saw you sitting down-stairs a short while ago, Mr. Winters."

"Yes," replied Jimmie, "and you must pardon me when I tell you that I overheard a part of the conversation between you and your friend. That is what brought me here. I don't know but I may be of some service to you."

"I hope so," said Wilson in the same pleasant manner that always characterized his conversation.

"First of all, let me tell you who I am, and why I am here," Jimmie began.

Recognizing that he was the aggressor, so to speak, Vincent Wilson had the right to a perfect and thorough acquaintance of the man who had intruded on him. So he told him all about his family, as well as himself, and added that if Mr. Wilson had any doubts as to whom he was dealing with, all he had to do was to step down-stairs into the branch office of Winters & Co. and satisfy himself.

Vincent Wilson was satisfied. He invited Jimmie to a seat, closed the transom over the door, evidently to indicate that he wanted secrecy. He was as anxious to hear what Jimmie had to say as the young man was to tell it.

"What did I say that aroused your interest, Mr. Winters?" asked Wilson.

"You spoke of a woman — Mrs. Clivers."

"Do you know her?"

"Yes," replied Jimmie, with just a breath of hesitancy. If a blush slipped onto his cheek, Vincent Wilson did not notice it.

"Well," said Wilson, "since you have taken me into your confidence, I will take you into mine. The only agreement that I will ask regarding what I may say to you is this: In the event of our conversation turning out to be absolutely useless to both of us, we agree never to divulge to a third party what we may say here."

"I agree to that heartily," said Jimmie.

Both men shook hands to seal the compact.

"I am employed by the Mainland System," began Wilson, "and, in my official capacity with that railroad, I discovered certain things that led me to believe that some one connected with the road is taking money for his personal use. To be plain, some one has been grafting."

"My God!" exclaimed Jimmie, wondering how Meriel could be connected with such a charge.

"I brought my suspicions before the president of the company, after convincing myself that if I could find Meriel Planquette I could secure from her—under pressure, perhaps—certain information that would lead to the culprit.

"Miss Planquette was a poor girl in our town, and was engaged to a young fellow now in the leper settlement at Molokai. Shortly after he went there she fell in love with a man, who showered her with jewels, and disappeared.

"There is an old fellow out in our town who keeps tabs on her pretty closely for some reason or other. His name is 'Doc' Ferguson. I tried to get him to tell me Miss Planquette's address, but he demanded five thousand dollars for the information."

"Gee whiz-z-z!" said the now startled and surprised Jimmie. "That was quite a price!"

"I guess that Ferguson saw that I needed his information badly, and he put his price at the top notch."

"It isn't possible that she—that she—could have—"

Jimmie didn't attempt the rest of his thought. It was too much to think for an instant that Meriel—his Meriel—could have been mixed up in a shady matter.

"I don't say that she had any direct connection with the theft; but I do think that she could give some information that would lead to the possible capture of the thief."

"Do you mean to tell me that she may have been mixed up in a crooked transaction, or the friend of any one whom she knew to be a thief and a grafter?" asked Jimmie, with considerable force, hardly satisfied with Wilson's answer.

"To the first part of your question I would answer, 'No'; to the second part I would say, 'I do not know.'"

There was a pause. Jimmie was thinking with set face. Wilson finally said:

"Tell me your interest in her, Mr. Winters. Remember we are speaking in the strictest confidence."

Jimmie did not answer.

"You very kindly gave me the most satisfactory reference as to your stand-

ing," Wilson continued. "If you have any doubts regarding me, you are at liberty to wire at my expense to the president of the Mainland System—Mr. Harvey Jones. Our home offices are in Louisville, Kentucky."

He waited a moment. Then Jimmie said:

"Thank you, Mr. Wilson. There is no occasion to do that. I am satisfied as to your position, and I believe in you. I—I was engaged to Mrs. Clivers. You will respect my feelings, I know, when I tell you that I am deeply in love with her, and she seemed to be in love with me.

"Our wedding day was set. I had gone home to Boston, where my mother lives, to break the news to her. When I returned to New York, a few days later, and called at her apartments, I was told by her butler that in the meantime she had married Clivers.

"Now," said Jimmie, rising, and bringing his hand down on a near-by table to add every possible emphasis to what he was going to say—"now, Clivers is the man I want to get even with! He stole the woman I loved when she promised to marry me! I hate him with a hatred that is something awful, Mr. Wilson—and I want to have my revenge!"

If there was the slightest quota of doubt in what Jimmie had just said, it was shattered by the intensity of his expression. Vincent Wilson saw in the set and rigid muscles of the young man's face that he was determined to make good his threat.

"Did you always know her as Meriel Planquette?" asked Wilson.

"When I first met her, she had just moved to New York. She was then the wife of a man named John Toylmore, who was killed in an automobile accident."

"What kind of a chap is this Clivers?" asked Wilson again.

"I've got him sized up as a fake promoter and a paper capitalist. He makes money, but just how nobody seems to know. We wouldn't carry his account, and I doubt if any respectable brokerage firm in the city will have anything to do with him. He's a big, burly man, well dressed, and he certainly has plenty of money."

"This interests me, Mr. Winters. I want to get a look at this man. He is staying here with his wife. Let's go down and get some luncheon. They may be in the dining-room now."

CHAPTER VIII.

Meriel at Luncheon.

VINCENT WILSON and Jimmie Winters went down-stairs, and found an unoccupied table at a far end of the large dining-room, where most of the guests and those who regularly lunched at the Continental took their mid-day meal.

The table was in the remotest corner of the room, but so situated that Wilson and Winters had a complete view of the entire room.

They ordered a light repast, over which they lingered for an hour and a half, during which time they reviewed every detail of the case as they were interested in it. At the end of their talk, they were on an excellent understanding.

They trusted each other implicitly, and, while Vincent Wilson did not take too much to heart the value of the revenge that Jimmie would have on his enemy, he was willing to help his young friend. And Jimmie was willing to give Vincent every possible assistance to learn the source of the leak in the Mainland System's finances.

They were about to give up their quest when Jimmie, who had been scanning the dining-room entrance, suddenly stopped talking.

"There she is now," he said, touching his companion's arm and indicating the dark, handsome, well-dressed woman who was entering and asking the head waiter to show her a table.

Wilson saw her. He would never have recognized the graceful, gentle, well-groomed woman as the poor girl whom he remembered only indistinctly in Louisville.

"By Jove, she does look fine!" he said.

But where was Mr. Clivers? Apparently she was alone.

She was unaccompanied, much to the discomfort of the two men. She crossed the room under escort of the head waiter and took a table some distance from them.

"Now, remember, Winters, there is

only one thing that I ask, and that is that you will arrange it somehow so that I can see Mrs. Clivers. I only have eight or ten questions that I want to ask her."

"I will do the best I can," said Jimmie. "Suppose that I go over and talk to her now?"

"Clivers may be in the hallway, lurking around," suggested Wilson.

"Oh, I'm not afraid of him," Jimmie replied, smiling.

His plan was to get Meriel in conversation, and then call Vincent Wilson to her table under the guise of an old friend.

Meriel was not startled when she looked up and saw Jimmie by her chair. Indeed, she was too good an actress, and too diplomatic, ever to let a situation get the best of her. She greeted Jimmie as if he had never had the slightest difference with her.

Jimmie was the first to speak.

"Meriel," he said, "I want you to forgive me if I hurt you this morning. You must really overlook it. I have worried about you—and I am sorry."

"Don't mention it, Jimmie," she said. "I'm glad to see you sensible again, and I'm sure that we can always be good friends."

Then she invited him to sit down. A waiter drew up a chair.

"May I ask where the 'better half' is?" he asked.

"I just said good-by to him for a while. He has to run over to Louisville for three or four days on business. It is a place that I do not care much about, so I stay at home," and she smiled as she spoke.

"My," said Jimmie, with feigned surprise—"fleeing from so beautiful a bride already?"

Then followed a lot of insincere small talk, for neither meant a word that was said. Meriel had married the pompous Clivers for his money. She knew it—but she veered from talking about it. In her heart she had all of her old love for Jimmie, but she wanted to smother it as much as possible whenever he was around.

As for Jimmie, the method that he was about to pursue was being slowly thought out and carefully planned even as he spoke to her. If he could bring to her, in some way, the proof that Bertrand Clivers was not all that he represented himself to be—merely an impostor—she might be induced to divorce the financier, and return to him.

Jimmie looked around and saw Vincent Wilson still sitting at the table.

"There is a friend of mine at a table opposite," said Jimmie. "May I call him over and introduce him?"

The tension of talking commonplaces to Jimmie had begun to wear, and Meriel, glad of any interruption to change the subject, acquiesced.

Jimmie, with his customary gallantry, arose, bowed, walked over to where Wilson was still sitting, and returned with the railroad man. After the introduction, and when the three were seated, Jimmie broke the silence:

"Mr. Wilson is a friend of mine from Louisville."

"Oh, indeed!"

"Yes," Vincent broke in, "Louisville has been my home for a number of years. I went to school there."

"Indeed," repeated Meriel.

"I hope to go there some day," said Jimmie. "I am told that it is a beautiful city."

"Indeed," said Meriel again. "Have you been to any of the theaters here since your arrival, Mr. Wilson?" she continued, turning to the railroad man and somewhat anxious to change the subject from Louisville.

Wilson said that he had not. Meriel finished her last sip of tea. Jimmie precluded a lot of dry-rot conversation if they sat there any longer, and was greatly relieved when Meriel rose. Wilson did not ply her with any questions.

Just as they were saying good-by, Jimmie asked Meriel when Mr. Clivers would return from Louisville. It was not that he cared to know. He would probably have been delighted if Mr. Clivers had met his death in Louisville. He asked it only as a matter of the most abject politeness.

"Sunday night," replied Meriel, with her sweetest smile. "He arrives here on the seven o'clock train."

She entered the elevator, and the men were alone.

"Thank Heaven you asked her that last question," said Wilson. "How did you know that I wanted to know when Clivers would return?"

"I don't know why I asked her that particular question," replied Jimmie. "It seemed to be the only thing that I had in mind at the time. Somehow or other, it was mighty hard to talk to her."

"Will you meet me here Sunday night when Clivers arrives?" asked Wilson.

"Surely," said Jimmie, "but don't ask me to introduce him to you. I don't want to insult you."

"I don't want to meet him," said Wilson; "I only want to see him.—For some reason or other my intuition tells me that I must get a look at this man. I will have Tom Tracie, of the detective bureau, with me."

"All right," said Jimmie, "we three will meet right here at seven o'clock sharp on Sunday night."

CHAPTER IX.

The Late Arrival.

THEY parted, and Vincent Wilson hurried down to the Metropolitan Police Building, where he found Tom Tracie. To the detective he related all that happened that afternoon.

Tracie listened eagerly. He was perfectly willing to make the engagement for Sunday evening, as he had been assigned to the case to assist Wilson. But he couldn't see what good could be gained by getting a peep at Clivers.

But Wilson insisted that he had a "hunch" that Clivers should be looked over. "And when I get these hunches," said Vincent, "something usually comes of them."

At seven o'clock Sunday night the three men, after a jolly dinner at the Continental, at which Jimmie made a most agreeable host, found a comfortable lounge in the main hall of the hotel. Inquiry proved that the train from Louisville—the fast express, on which passengers traveled who wanted to make time—was some fifteen minutes late, and the trio settled down to kill time.

As the moments wore on, Jimmie now and then took out his watch with some uneasiness.

Maybe Clivers wasn't coming that night; maybe Meriel had made a mistake, or was only fooling them. Perhaps, after all, it was a fool's errand on which they were bent.

It was nearly thirty minutes past seven, and Clivers had not arrived. Jimmie was clearly nervous; but the other men, more used to meeting obstacles, only laughed at his uneasiness.

"I will go to the clerk and ask if the train is any la—"

Jimmie did not finish his sentence.

Clivers was entering. Two bell-boys rushed toward him, grabbed his valises, and made for the elevators. They knew Mr. Clivers was already registered, and did not escort him, as is customary, to the clerk's desk.

"There he is now," said Jimmie, as the portly arrival appeared. There could be no mistake. A tall man he was, perhaps close to six feet, with a very protruding stomach and particularly large feet, on which he was not very steady because of his terrible bulk. His face was large and adorned with a heavy, black mustache. If he had removed his hat, it would have been observed that he was possessed of a heavy shock of hair which he kept closely plastered to his head.

"Where?" asked Wilson.

"There," replied Jimmie—"that big man with the heavy mustache."

"That," replied Wilson—"that! Why, that's—that's—" He seemed to be gasping. "That's Blander!"

"Who?" asked the other men in unison.

"That's Blander," repeated Wilson. "Wait; I will go and speak to him."

That night Vincent Wilson wired to Harvey Jones, president of the Mainland System, at his private house in Louisville:

Have a clue. Must remain here a few days longer. Will return Tuesday night.

(To be continued.)

A side-track is a mighty useful thing, but don't stay with it too long. Kick for running orders.—An Old Con's Con.

James H. Lawrence, Oldest Railroad Wage-Earner.

BY NATHAN E. BURKE.

NINETY years old, but still at work in the roundhouse, James Harvey Lawrence, a veteran wiper of the N. Y., O. & W., enjoys the distinction of being the oldest regularly employed railroad man in America.

There may be older railroad men in this country, and, if so, we should be glad to hear from them. However, our sources of information lead us to have little doubt that to James Harvey Lawrence alone belongs the title of "Patriarch of the Track."

The ranks of the old guard of railroad men who were boys when the first locomotives went wheezing along their wooden rails are growing thinner, year by year, but Time has been kind to many of them, and the healthy out-door lives they led have kept them well and happy while their less hardy brothers have been forced to answer the final call.

Ran a Foot-Race with the First Engine on the Erie When a Boy, and Has Since Established a Roundhouse Record of Wiping a Thousand Miles of Locomotives.

AT the age of ninety, James Harvey Lawrence, a wiper on the New York, Ontario and Western, stopped work long enough one day to figure out for me that he had polished up locomotives enough to make a solid train reaching from New York to Chicago. Having kept a record of them, he was able to arrive at a total figure of 70,640, and any one who cares to verify his calculations may readily do so. I was content to take it on faith, but he was not satisfied with that, and insisted on showing me his figures. You can work it out for yourself, but you should have no trouble in taking my word for it when you learn that here is a man who saw the first locomotives built, yet is still busy at his work of slicking them up.

Within the period of Lawrence's life the railroad has developed from practically a small line to one of great value. He is probably the only man living who saw the odd little trains of the early thirties, and is still up and busy every morning.

His position in the railroad world is so unique, he has spent so many toiling years at one of the most wearying tasks that falls to the lot of those who serve the mistresses of steel, that I went to Middletown, New York, where he has lived all these years, to have a talk with him and learn with how much courage a man can face his day's work in his ninety-first year.

Patriarch of the Roundhouse.

At his age one might reasonably expect to locate him at the warmest spot behind the stove, or sitting in the sun

on the sheltered side of the house, but when I found him he was at work in the roundhouse, with a reasonable expectation of making his string reach to Omaha, or at least, Des Moines.

Phil Mitchell, the yard boss, and "a white man" Lawrence told me feelingly, took me over and introduced me in person. At the moment he was passing around an engine with remarkable spryness.

"Hallo, pop," Mitchell hailed him jocosely, "the boys tell me you're thinking of marrying and settling down."

The old man stopped, and, shaking his head with the saddest expression in the world, solemnly assured Mitchell there was nothing in it.

"You don't want to believe all you hear, Phil," he commented.

"Well, it's mighty funny," Mitchell continued, "but I notice you see all the pretty girls as they go by."

"Oh, I didn't say I couldn't appreciate a pretty girl," the old man laughed, "I don't expect I'll ever be too old for that."

From these pleasantries you might gather that he is a young man for his years, but that is not so. He is all of his ninety years, and they weigh down on him the more on account of the hard work he has done. But, in spite of it, he moves around for hours at a time without sitting down to rest.

"See this one," he said, pointing out an ordinary freight-engine.

"When I first looked on a railroad you could have put all the locomotives in the country inside her boiler. But I didn't begin wiping then. Why, it was hardly more than yesterday that I broke in at the railroad business. I was sixty years before I ever wiped an engine."

"Most men would be ready to quit about that time," I ventured.

"I wasn't so young myself," he went on, "but I had to work just the same. I had been a wheelwright, but when they began to build the big shops thirty years ago, it cut out all of the independent blacksmiths, and I had to turn to something else. This was the first thing I struck, and I have been at it ever since.

"And I have wiped some, too," he said proudly. "My record shows a list I'd like to see duplicated. Until I was eighty-two years old I was boss wiper, and turned out ten engines a day. Now I'm too old for that, and some one else has to do it, but while I lasted I was a worker. Ask Phil. I was an old man when he was only a boy, but when I was seventy I could do more work than at any time in my life."

Races with First Locomotive.

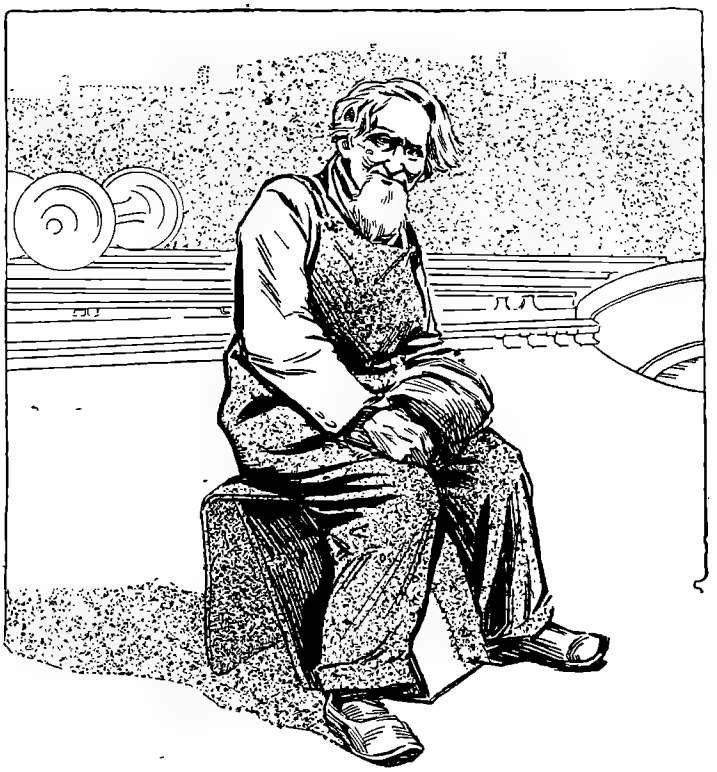
The Erie, as well as the New York, Ontario and Western, passes through Middletown, and I knew that the Erie had been built through that section when there was hardly three hundred miles of track in the country. I asked him if that was where he had first seen a train.

"I lived eight miles from here," he replied, "and I was a fairly well grown youth, near twenty years old, before the Erie was built. Why, I can remember the days before steamboats were at all common. I remember in particular a trip I took with my grandmother from Newburgh to New York, down the Hudson in a sloop, and it took us three days. So you can guess everybody for miles around turned out when the first train came through. Anything that could run ten miles an hour and keep it up, unless something happened to it, was wonderful, perfectly wonderful. When I think about it now it makes me laugh.

"That engine was surely a comical sight to see squeaking along, but it didn't seem that way to us then. Why, it wasn't much bigger than a sewing machine, but it made a powerful lot of fuss about itself. We were country boys from the backwoods, and, of course, we had to go down the track to watch for the first train to come in, while our elders stayed at the station and waited. It was a pretty long wait, too, as it was so hard to keep the train on the rails.

"Finally, we must have got two miles down the track before the engine came in sight. When she was pretty near up to us, we started to run ahead, and the engineer steamed up to get enough speed to run us off the track. But he couldn't do it. We turned around and mocked at him, and only the little fellows had to get out of the way."

The old man seemed to relish the recollection.



JAMES H. LAWRENCE.

Drawn by H. M. Bunker from a photograph by the Times-Press, Middletown, N. Y.

"It was a long time ago, and I don't remember very well," he continued, "but I can still see that little squeaking thing swaying from one side to the other, about to bust itself scaring up enough speed to drive a parcel of boys off the track.

"Off Again, On Again."

"Just before, or just after, we reached the station, the rails spread, and down went the engine between them in the mud. You couldn't believe they ever run trains on such rails as those. They were just strips of wood, the size of a scantling, fastened along in a line without any cross-ties to keep them the right distance apart.

"When you looked down a stretch of track you could see that it was a pretty crazy road to put a train over. But, even if they did go off the rails, it didn't make any difference. They never had enough speed to hurt anything, and three or four men could just about pick up the engine and set her back on the rails after some one had kicked them into place.

"That kind of railroading didn't last long, and it wasn't a great while before they had ballast in the road-beds. When I took a ride for the first time, a few years later, we didn't get off the track more than half a dozen times in fifty miles. At that time they were still using wooden rails, with iron straps along the side, but there were cross-pieces serving the purpose of ties.

"When you get on a train now, you don't look for anything to happen, and you're pretty sure of getting in somewhere near on time, but a ride on a train in those days was a different matter. The coaches were hardly bigger than wagons, and the engineer could shout his orders to the conductor from the back of the train.

"But what gets me is that those little engines, with boilers no bigger than a barrel, used to make a heap more fuss

than these big fellows here in the roundhouse. They would come howling over the hills like a band of Indians, and you could hear them puffing on the grades for miles."

A Panther with Wheels.

Mr. Lawrence didn't tell me this story, but it happened in the same part of the country. There was an old trapper on the Delaware, who lived by himself and carried on his operations in the hills, so that he did not see the rails laid, and knew nothing of the Erie. Vaguely he might have heard of railroads, but he had no visual knowledge of them. Every day about the same time he began to hear panther cries on the other side of the hill, and each time he stalked them to the creek, where he lost them.

Day after day it kept up, and he set traps until the woods were full of them, but with no result. The animals' strange conduct and few scattered calls in the middle of the day mystified him, and he decided to be on hand to pounce upon it the next time it let loose.

While lying in wait on the hillside he heard the panther far down the creek, marking its progress with agonizing cries that increased in shrillness as it approached. Any one who has ever heard a panther and listened while its voice ran from deepest pathos to a wild demoniacal laugh can understand exactly how he felt.

With his old flintlock primed, head down, sprinting through the underbrush to get within range before the beast got the scent, he did not have time to analyze the notes in the panther's cry, or he might have thought it had a strangely metallic ring. Instead, as the cries came nearer, he hurried the faster, and, seeing what appeared to be a clear space ahead, he leaped out and opened fire on the strangest monster he had ever seen. But, before he could reload, it knocked him into the gutter beside the railroad track.

When I remembered that Lawrence was a grown man when this happened, it was borne in on me how old he really is.

"Why do you keep on working at your age?" I asked.

The lids of the old man's eyes quivered, and I thought for a moment he had been hurt by my brutal question. But it was not that—he was thinking. The idea had never been presented to him so pointedly, and it took a minute to frame an adequate answer.

"There's more than one reason," he finally said. "All my life I've had to help my relations, and it took every cent I've laid by. So, when the time came that I couldn't earn so much as a younger man, I had nothing saved, and I simply had to keep on working."

Keeps On Despite Years.

"It seems to me," I interrupted, "that they might have helped you then."

"They would," he admitted, "if I'd let them. I live with my granddaughter, and she keeps wanting me to stop, but you see I wouldn't be happy, and that's what I tell her. After you've worked every day for about eighty years, you can't stop, and that's all there is to it. I wouldn't know what to do with myself with so much time on my hands.

"Here I am perfectly happy. I know this place so well, and I am so used to it now that I miss it more than you imagine when I'm sick. You see, it's pretty much all of life that I have left. When evening comes, and I am tired, I sit at home and read the paper and go to bed early."

"But don't you ever feel in the morning that you'd like to rest a little longer?"

"I'm not as fresh as I used to be," he confessed, "but I have noticed this," he added confidentially. "When a man has worked until he is pretty old, and quits, he doesn't last long. Now, I want to live a few years yet, so I think I'll just peg along until I can't do anything any more."

With that he turned and left me and went back to work.

Cold cylinders haul no tonnage; neither do cold feet.

—Letters to a Steam Producer.

TAMING BAD BILL GOODE.

BY EMMET F. HARTE.

This Time Honk and Horace Purify the Sacred Precincts of Valhalla from the Taint of Trespassers.

THE completion of the spur connecting Valhalla with the main line at Millardsville was quite an event. We had a half-holiday and speeches. The company put a brand-new, splinterfied, gasoline motor-car in commission on our branch. It made two round trips a day.

Valhalla became a station, and I became station-agent. It was the easiest job I've had since the Spanish War, when I—but post mortems are odious, according to my favorite author. Between the busy hours when the motor was due out and in, I spent my strenuous moments in catching grasshoppers and swiping at the darkling pools of the purling creeklet for trout in the Mystic Hills.

We had the medicine-house brought over for our own accommodations, and life loomed large and pleasant in the offing. It seemed a palpitant strain of delightful melody to me. I gained fifteen pounds the first thirty days.

Honk pretended to be very busy; I guess he was; Honk never was otherwise. He was like a peanut-vender trying to operate six corn-poppers at the same time.

Whenever anything went wrong with any of the multitudinous array of machinery which was being unloaded and set up daily around Valhalla, Honk was the man to adjust it. He was a tinker from Tinkerton, was Honk.

When a motor jammed, a spark-arrester went to sleep on its beat, or a centrifugal pump got the colic, who fixed it? Honk.

When plumbing leaked, wires refused to tote fair, or bearings squeaked, Honk was the physician.

When he wasn't cobbling up the motor-car, which had a penchant for breaking down without the slightest excuse, he was installing lights.

When he wasn't surveying, charting grades, or putting in a new factory of some kind, he was piloting some of Dade's would-be investors around in a halo of hot air, or dissuading some undesirable character from making Valhalla his final home.

Honk constituted himself a strict censor over everything that came in, whether declared dutiable or not. He claimed a clairvoyant sense of discernment; could spot a person of questionable attainments farther than a turkey buzzard could smell ripe meat, he said.

All this he told me during the evenings while the phonograph played "Chicken Chowder," and he whiled away the time perfecting a new-fangled typewriter that would add, subtract, multiply, extract the greatest common divisor, and match you for the cigars.

What was it I started to tell? Oh, yes, about bad Bill Goode. I'll recount about how William Goode happened to light in our pleasant midst. He came at an inadvertent moment.

One night, down to the power-house, which was now running all fine and dandy, and was Honk's particular hobby, the man that hostlers around, or did hostler around (he isn't any more), the gentle soul whose duties were to keep the brass-work bright and shining, and the cobwebs from hanging down and getting in the way, carelessly and without due tact and discretion, probably while dreaming of the dear old days when he toted a hod, stood a slicing-bar, or some such emblem

of office, against Honk's biggest dynamo, whereof things happened.

Red, green, blue, and variegated things, and the roaring as of mighty deeps loosened and up-ended. The power-house went out of business so quick that the annunciator broke its arm getting back to taw, and the wheel-base fell afoul of the doo-dad before the magneto could whirl and annihilate the annihilator.

At least, that is my morbid conception of the disaster, gleaned from hearsay. You can take it or leave it. I wasn't present when the thing occurred.

They wigwagged for Honk with the siren. Ever rewind or rewire or rejuggle an armature, or whatever you call it? I'm no electric sharp, or I might be able to speak technically on the subject, and then nobody would understand me.

I know enough about the crazy stuff to drop a zinc into a jar of to tell when I've burned my thumb on a hot end—that's all.

The whole line of dope is cards and spades for Honk, though. He knows just where to catch hold and not get stung. It's all coconut candy for him. It took a sixty-hour shift for him and his little toolbag, however, in this instance.

As a patriot and a promoter, I refrained from fishing for the next two or three days, and checked in the visitors during Honk's absence. That's how the two-times before mentioned Goode party got by the guarded gate.

Honk said afterward that he would have nailed him as a crook of the first water before the motor had got done squealing for town, but that's as may be.

The gentleman appeared civilized. He was dressed modestly in male apparel. His shoes, I noticed, needed a shine several days overdue; his collar was tarnished, and cuffs he had none; but he was sober. His hat was broad, black, and parted in the middle. He carried a traveling kit that might have contained either burglar tools or a cook book, so far as I knew.

He walked unexcitedly over to where I stood, receiving the guests of Valhalla in my vice-Honkian capacity, and wondered where the best hotel was.

He had mild, grayish eyes, and a voice between a tenor and a barytone—a tenor *profundo* or barytone *crescendo,* you might call it.

"What line of business, please?" I asked politely.

"Common tourist," he said without asperity.

"Try the Palazzo," I recommended. "Two dollars a day and up. American or European, according to taste. Two blocks up street. Next!"

He murmured thanks and sauntered in that direction, or maybe he didn't murmur thanks, I don't remember.

I mentioned him to Honk later.

"Looks like either a ranchero, a caballero, or a hobo, I can't say which," I said. "Or he may be a duke, traveling in *apropos,* or whatever you call it." Honk was inattentive.

"That was as complete a burn-out as I ever saw," he said, referring to the late short-circuit. "Why, man, she crossed her current through six separate layers of insulation, reversed the incongruity, and evolved a "—if he didn't say that, he said something that sounded like it, anyway.

I happened to be passing the Palazzo in a day or two, and stopped in to beat the slot machine out of a cigar. The clerk was a crony of mine.

"Seen the poker player, yet?" he asked.

"No," I said. "Who 'tis?"

"William W. Goode," he made reply. "Tall, smooth-faced gent, with a sad look and a black hat. Rooms here, and eats when he's hungry. He's a card expert. Last evening he trimmed our dear beloved boss of this hotel, here, of a thousand iron men in a friendly sitting at a dollar limit in Room 88. He's going to board it out."

I was charmed and diverted.

"Where'd they get their permit?" I inquired. "We don't aim to make no sportsman's paradise out of Valhalla that I've heard tell of. This is Spotless Town, according to the blue-prints."

He winked adroitly.

"I know," he said. "I'm aware of the fact that your long, hungry friend Simpson, who has been czaring around here ever since the P. and P. promulgated the place, has got a bug of that sort, but— Pshaw! We've got a city here now, a municipality. Didn't we

adopt a charter by popular vote two weeks ago? Didn't we elect a mayor and three franchise dispensers? We did.

"We're forging to the front. All we need now is a little public spirit, civic pride, and a café or two, and we have arrived. And our friend Goode is going to fix it so he can open up a café, next door here to the Palazzo. Wake up, Dreamy, and get in the procesh!"

Now, neither Honk nor I are identified with the dry movement personally. We only expected to start Valhalla off on the right foot. There be weak mortals who can't resist temptation like he and I can. What we had in the private stores of the medicine-house was nobody's business.

"You take it from me, son," I said. "I'm grand vizier to the Calif Haroun Al Raschid, heap biggity muck-a-de-muck. There won't be no boozorium in Valhalla soon. Not any. And I've got a mental panorama of this card-artist star boarder of yours going over the divide in a shower of sparks as soon as Hancock Simpson hears of his delinquencies. Why don't you get a decent cigar-lighter around this dump?"

"THEY COME ON ME SUDDEN, AND THEY'RE ALWAYS FATAL TO SOMEBODY."

Well, what do you think? Bill Goode came down to the medicine-house that evening and interviewed us, the calif and me, his aide-de-camp. Bad Bill's breath savored of the red, red beverage, and his eye watered, but he was firm of step and garrulous.

"Simpson, of the P. and P. outfit?" he inquired. "I've heard of you, some. You think you're it around here, don't you? Some says you'll do, and some says maybe. My name's Goode. I'm a hateful and poisonous proposition. I come from the salty and brackish waters of Tough River, and I come clean. At times I am mean in my conduct and dangerous to be safe," he went on to explain.

"Sorry to meet you," said Honk. "When do you expect your spell to be at its worst?" That seemed to irritate our guest somewhat, and in his moment of anger he produced from either side, where they had been concealed beneath his coat, a large blue-barreled revolver—two, I counted 'em, two—which he handled familiarly, one in either hand.

"I'm losing control of myself now," he said. "They come on me sudden, and they're always fatal to somebody." I believed him unreservedly. Honk seemed unconvinced.

"Yes," our visitor bellowed. "I went out of my way to hunt you fellows up and settle this matter. I hear you in-

tend to run me out of this town. I hear you don't like my style of beauty." (Curses.) "I hear I'm not nice enough to play in your yard." (More curses.) "I—I—"

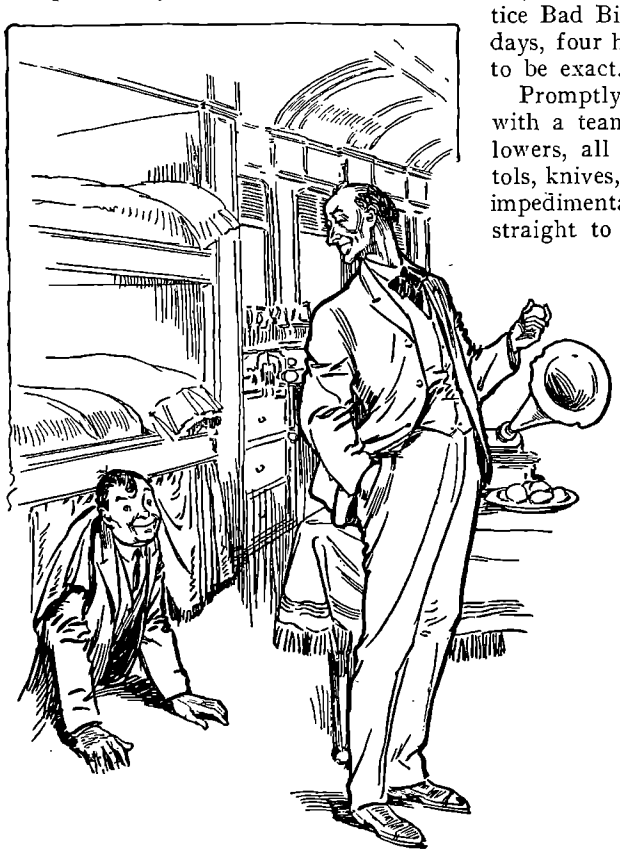
"Shut up!" said Honk. "You'll wake up our pet parrot there in his cage—he's a light sleeper. Horace, this man," he continued, addressing me—"this man is bad. He admits it. He has come down here to pick a fuss out of us, Horace."

I nodded. It so appeared to me.

"We will feed him to the tiger," Honk resumed. "He must be sacrificed. It will do him good, besides benefiting him."

He allowed his gaze to wander past the armed man, as if fixed on some approaching object. Try this, some time; it works.

"Steady, steady, Hector," he said. "Nip him, boy, *now!*"



I SURPRISED HONK IN THE ACT OF DEVOURING A COLD POTATO.

The bad man from Borneo couldn't resist the temptation to turn his head, by which lapse from vigilance we got him. When his guns were captured, and our bloodthirsty visitant somewhat messed over, Honk lectured him, gave him an hour in which to leave Valhalla forever, led him to the door, and kicked him ruthlessly from the platform, all spraddled out.

"So much for the hateful and poisonous proposition," he remarked, as we returned to our cozy chairs. "Many are called but few are chosen. Such is life in the Far West. As I was saying, the absence of red rays in these vapor lamps is a peculiarity which will render them impracticable for illuminating purposes in the ordinary sense. But! My idea would be—" etc.

I went to bed leaving him still talking, or talking still, whichever you prefer, and filing a saw. We did not notice Bad Bill around for two days. Two days, four hours, and thirty-nine minutes, to be exact.

Promptly at that minute he reappeared with a team, wagon, and two camp-followers, all loaded down with guns, pistols, knives, cartridge-belts, and the other impedimenta of brigandage. They drove straight to the Plaza, in the center of Valhalla, unhitched and picketed out their plugs in the park, threw up a fortified camp, and took possession of the city in the name of Riot and Disorder. Wouldn't that blow off your hat?

They awed us on the first jump; I'll have to admit that. You take three irresponsible drunken ruffians, clothed in smoke and profanity, and let them march up and down the streets of a peaceful community, shooting out window-panes and otherwise roistering and intimidating indiscriminately in all directions, and the timid quake in their puttees.

It even wears on us more intrepid souls; the noise of their shooting got in my ears so that I secreted myself un-

der my bunk in the medicine-house and walled up the opening with canned goods.

What Honk did I couldn't say. I'm not his grand vizier all the time. I have my half-holidays. It was said that Bad Bill and his wayward crew swore to kill, maim, and lacerate Honk and me at sight, and that they craved the sight of us—begged and pleaded for that boon, in fact.

All day the fusillade continued, except at intervals when the besiegers were reloading themselves and their guns; all day business was at a standstill in Valhalla, and the three drank deeply from their stock of refreshments in the wagon, strewed bottles in all directions, and took pot-shots at everything in sight.

It was a reign of terror; Valhalla was in a state of beleaguerment. They came down during the afternoon, and shot out most of the medicine-house windows. I remained under my bunk, and held no conversation with them whatsoever. I knew that if I got started I'd go too far—several miles at least.

Somewhere along about nine-thirty in the evening I heard a stealthy step outside. A key was inserted in the lock guardedly, and Honk entered. I knew him by his sniff.

I emerged from my sanctuary somewhat crumpled, and surprised him in the act of devouring a cold potato. He had come home to eat.

"How you startled me!" he said. "Where'd you come from? I feared the worst had happened to you. Well," briskly, "what's the news from the front? I've just this minute returned from a junket south of town. The alfalfa-fields look fine."

"The news," I said, "is not reassuring. Valhalla is in the hands of the Goths. Rome is burning, and the tom-tom sounds in the market-place," I reported.

"Now that I have arrived on the scene," he mused, "we must devise ways and means to stop the conflagration. I feel better since that sandwich. First, the proposition is this: We have before us a problem. A foreign and deleterious element has appeared in our midst. Our body politic is attacked by a malignant, cancerous, parasitic growth — a fungus has sprung up.

"All problems have a solution. all diseases a cure, all poisons an antidote, according to exact science."

"Hip, hip!" I cheered in a whisper. "What's the answer?"

"I've been cogitating," he continued. "Don't hurry me. All day, while I lay—I mean, while you lay—secreted from the eyes of men, and the vandals ripped and tore through the streets of this, our fair city, I sat and busied my wonderful brain with thinkings.

"Now, since I've partly dined, I don't mind confiding that this Bad Bill Goode person and his confrères in hoodlumism are my meat. Science wins over savagery. It has been so all down through—"

"*Bang! Bang!*" went something, coming down the street.

"Finish your diatribe later," I said. "Me for the weeds!"

I hurried out, leaped, and lit running. Later I discovered Honk beside me. It didn't seem to exert him much to keep up with my short stride. He talked as we marathoned.

"As I was saying," he resumed, "science has disclosed the curative and rejuvenating properties in a ray of light. Certain diseases disappear like they were shot out of a gun upon the application of the violet ray. Tottering invalids are made whole, sores healed, devils exorcised.

"All right, I call the bet and raise you a few chips. If a violet ray cures a sick man, there must be something to sicken a well man. It's the law of opposites.

"Every condition has its alternative, every argument two sides. Very plausible reasoning.

"If a violet ray fixes 'em up, what tears 'em down? What are the primary colors in a prism? Don't interrupt!" I slowed down, puffing, but was too winded to answer.

"Violet, indigo, red—etc." He fell over an obstacle in the darkness. I waited. "Curses on the guy that left that water cut-off sticking up!" he commented. "Indigo and orange rays, Horace, will do the business. How do I know? Never mind. Shoot 'em at a living organism, and what happens?

"His blood clogs in the capillaries, his nerves curl up and sting him, his heart fails, his lungs refuse to perform

their vital work of purification, and the little microbes that lurk in every nook and corner of his system, waiting for just such a moment, swarm out and go for him.

"There you are. His harvest days are over, for a spell."

"Well, then," I said, "you never had a more glorious opportunity to inoculate a bunch of marauders than now presents. What are you running away for?"

"Running away!" he snorted. "Huh! You've got a gyroscope in your occiput. We're not running away—we're *on* our way; to the power-house, Horace. You seemed in a hurry; that's all the difference I can see."

We were, in fact, headed in that direction, although I hadn't noticed it particularly. A couple of blocks farther brought us there, and Honk proceeded to put his theories into practise.

Butch Poteet was chief cook and officiator at the power-house at night. We enlisted his services.

There was a thousand-candle search-light over in the corner. Honk built it one day while killing time. It had never been used, but was warranted to stab a hole in the dark for I forget how many miles.

We put that search-light in shape pretty shortly. Connected up a coil of wire to it, trimmed her with new carbons, greased, primed, and hoisted her up the ladder on the two-hundred foot stack above the boiler-room, where we had a sweep at every crook and turn of Valhalla.

"They can't get away," chuckled Honk. "This stunt is too simple for grown men to engage in, but it's inexpensive, and will do the work. We could go down and clean 'em out at their own kind of game, but that is so littery. This is better."

"It is," I agreed—"much better. On with the dance!"

I took an enthusiastic interest in the setting of the stage for action. I like long-range fighting.

"How do you color your lights?" I queried. "Have you got any blue glass to squirt it through?"

"My boy," Honk spoke sympathetically, "save your brain force for the abstruse problems of eating and waddling around. Science is taboo for you. Don't you know that light shining through a blue glass is not a blue ray? Of course, you don't.

"Butch, watch him to see that he don't fall in the fire while I'm up aloft. And, Butch, bring me that boxful of bottles off the shelf—the one I warned you about. I'll show you some sure-enough blue rays."

"Just the same—" I started to get back, but he was gone. He scuttled up the ladder, and fastened himself somehow, with the search-light swinging in front of him, just below the hood of the stack. I climbed up about half-way to see the show and to yelp the word down to Butch when to turn on the juice.

It was a good half-mile to the Plaza, where the center of trouble was. We could hear faint hallos and the occasional crack of guns, and see little spurts of fire. Honk passed the official call for current, I handed it on down, and Butch flipped over his cut-in switch.

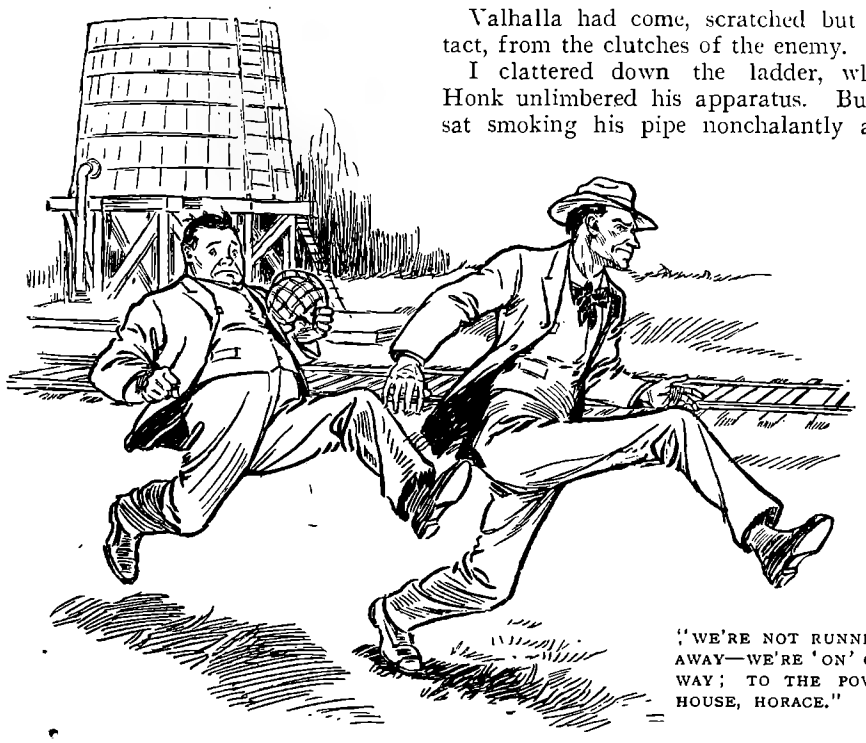
First came shooting the dazzling gleam of white light that slipped through the darkness like a sword-blade, and waved along the streets, breaking and spraying at the end into a cascade of light that showed up the pores in the bricks. A mouse couldn't have hidden himself where that ray struck.

Honk located the despoilers in about ten seconds. There they were, three maudlin puppets, waving their puny arms and shaking their little fists in defiance.

Bang! Bang! Bangity! went their pistols. It sounded like the popping of popcorn at that distance, and the bullets fell considerably short—not any too short to suit me, though.

It looked like a moving picture with the *"gr-r-r"* of Honk's machine up above. Goode and his partners stood about half-way between the big fountain in the Plaza and the corner where the two stone lions are, and they kept on waving their flippers and wasting ammunition. That was the way the scene looked when Honk turned on his medicine.

I don't pretend to say how he did it. He clinkered and squittered a minute, with his bottles and his light, humming a tune to himself. The bright white beam of light up above me suddenly turned a ghastly gray, then purple, cobalt, black



"WE'RE NOT RUNNING AWAY—WE'RE 'ON' OUR WAY; TO THE POWER HOUSE, HORACE."

Valhalla had come, scratched but intact, from the clutches of the enemy.

I clattered down the ladder, while Honk unlimbered his apparatus. Butch sat smoking his pipe nonchalantly and poring over the *Evening Clarion*. Nothing excited Butch except a dime novel.

almost, gruesome, horrible-looking. I looked once, and shut my eyes. It gave me a chill.

When I looked again, he was shooting a thick, gummy, yellow streak of light into them that made me still sicker to look at. I could guess what it was doing to those guys at the end of the ray.

Then he changed back to the blue again, and I saw one of the victims start to run. He made a jump, then crumpled up, and fell on all fours like a dog. I imagined I could hear him *"ki-yi."*

'Twas very interesting and instructive to see Bad Bill try to fight that indigo dope that was turning his microbes loose to undo him, and to see it finally wilt him. The other two were down and rooting in the grass of the park before we fetched Bad Bill, but he got his a plenty, after so long a time.

He ran fifty yards for a tree, but couldn't make it. Honk just actually swamped him with poisonous rays before he got there. He threw up his fins and fell like a corn-stalk before Kabibonokka, the north wind, and freedom rose up out of the shrubbery whither she had fled, and reconnoitered.

"I guess I didn't put 'em down on their crawlers, eh?" said Honk, lugging in his paraphernalia. "Gimme a chew, somebody. Don't all speak at once. Say, that stuff's hard on the nerves! Look how my hands are swelled up where it hit 'em. Come along, Horace; if you can control your cowardly legs, we'll go up and clear off the mess on the lawn."

Well, there wasn't any bad men whooping around the Plaza any more. Bad Bill Goode and his huskies had reformed. There they sat on the grass, all hunkered up, sicker than hounds with cholera infantum, looking around like their last friend had made good his escape.

"Come, come," said Honk, lifting Bill Goode by the ear, "this'll never do. The big show's over. The little boys must skiddoo for home, before the booger man gets 'em. This park is supposed to close at nine o'clock, and here it is ten-thirty. You fellows are due for a rough-housing right now."

"No, sir; yes, sir," the wild and woolly ones squeaked in chorus. "Don't hurt us; we're sick. We're all shot to pieces."

They looked it. Chills, fever, typhoid, pneumonia, rheumatism, pip, roup, and boll-weevil. They had 'em all. Not a whoop or glare was left.

Tottering, limping, and bent with misery, they caught up their plugs at Honk's direction, hooked them to the schooner, and hoisted themselves on board, with many creaks and complaints.

Bad Bill had a terrific chill before he got both feet in, which was followed by faintness, nausea, headache, and flatulency. The other two were having dizziness and hot flushes alternated by torpid liver and that all-gone feeling, when Honk headed the team into the street.

The helm was hard aport, and their course was laid for the open sea.

"Ta-ta, good-by, and farewell!" said Honk. "Whip up, now, and don't bother to come back. Your work is finished here. If either one of you fellows ever does come back as long as I'm hanging out in this neighborhood, please feel sorry for yourselves. You've had your last sample. Next time you'll get the real article. Now, hike!"

Bad Bill Goode propped himself up with a shaking arm, and looked at us with an air of apathy. Then a last flicker of his outlaw's spirit stirred him, and he shook a trembling forefinger at Honk.

"Eh-eh-pooh pooh for you!" he squeaked as they drove away into the night. "We ain't afraid of you, dad-bust you! Whip up, boys, an' let's go!"

"THIS PARK IS SUPPOSED TO CLOSE AT NINE O'CLOCK."

BRONZE INSTEAD OF BRASS.

AN order recently issued by the Atchison, Topeka and Santa Fe will result in every car and coach on the system being sent to the shops and the brass trimmings will give way to those of a statuary bronze. The hat-racks, side-rods, light-fixtures, and every piece of brass will be taken out or covered with a coat of bronze.

This will do away with the constant expense of polishing and keeping it in shape. Bronze will hold its color unaffected by the elements, and will never grow dull and distasteful to the eye. A little cleaning now and then for sanitary purposes is all that is necessary.—*Railway and Engineering Review.*

The Science of Rate-Making.

BY THADDEUS STEVENS.

THE whole range of commercial statistics knows of no more complicated, delicate, and far-reaching process than the making of freight rates on American railroads. The vast territories covered, the different requirements of those territories, and the widely varied products which the enormous area yields, combine to make a problem that only the best-balanced and most orderly minds can cope with. In addition to this, all these conditions are constantly changing; and when it is considered that the rate-makers must work within the lines defined by forty-six different State governments, as well as the Federal government, the size of the task can be imagined.

Rate-making is a science in process of evolution—a science whose fundamental premises are being constantly changed, and the professors of which need to be more up to date than those of any other science, because they are a direct economic force in the community.

The Systematic Manner by Which the Present Elaborate but Excellent Schedule Is Built Up from the Invention of an Ordinary Freight Clerk.

THE making of a freight-rate between two points on different lines of railway is not the work of one man; it is the joint product of a hundred brains. If the article covered is a new and hitherto unclassified one, perhaps a thousand people will each have contributed their quota of information or advice before the price of its transportation is agreed upon.

When one of the historic first railways in America was built, out of Camden, South Carolina, the wagon freighters charged twenty cents per cubic foot for light weight, and a dollar a hundred pounds for heavy articles. This was for twenty miles or less, because that distance was a day's work. The Camden Railroad's charter decreed that its charges should not exceed ten and fifty cents—half what the wagon freighters were charging. So the officials of the infant railroad divided its territory into ten-mile districts, and adjusted its rates at a hundred pounds per ten miles.

They soon awoke, however, to the fact that the value of the goods hauled was an important element in their cost of transportation. Therefore, the Camden and the other little lines then in existence evolved classifications of merchandise, fixing rates according to class instead of commodity.

Birth of Classification.

Thus was born the basing of rates on the class of goods, a system which with certain exceptions prevails on all the American railroads to-day. These exceptions are the special commodity rates, which are far in the minority.

Every article of merchandise that a railroad handles is supposed to be listed in the official classification-book which governs in the region where its trains

run. In this book is listed alphabetically between eight and ten thousand articles.

In the column opposite each is a figure or a letter of the alphabet showing the class to which it belongs. Now, this classification is of no value by itself, any more than the thumb would be without the fingers.

The freight tariff is its necessary complement. Taking the two together, the rate is arrived at.

If you ask a clerk in a freight-office for a rate on "blood, dried, in packages," Chicago to New York, for instance, he will not start back in horror, and reach for his steel eraser as a weapon of defense. He will reach for his classification-book, casually remark that it is third class in less than car-loads and sixth class in car-loads.

Chaos of Standards.

Then he will look in his tariff-book, and say that the rate on the former is forty-two cents—or whatever it is—and the rate on the latter twenty-one cents. If he had not had both the classification and the tariff before him, he could not have told you the rate.

The basis, then, of the freight-rate is the classification. Years ago, each railroad had its own classification, and the man who wanted to ship a case of shoes from Boston to Baltimore could get only the haziest of ideas as to what the through rate would be—he knew even less what his competitor was likely to pay.

Before the adoption of the present system—there are but three sets of classifications now—there were 138 distinct classifications in the Eastern trunk line territory alone. History is silent as to how many there were in the Middle States and the West, but there must have been an appalling number.

The reduction in the number of classifications to three was brought about by the growth of through traffic, and of friendly relations between the warring railway officials. These three classifications—born, as one writer puts it, of "deliberation, discussion, and strife"—are as follows.

The Official Classification is supreme in the territory east of the Mississippi and north of the Ohio Rivers, and contains six classes. The Southern Classification, with fourteen different classes, in the territory east of the Mississippi and south of the Ohio Rivers. The Western Classification, with ten classes, in the territory west of the Mississippi.

There is also a Transcontinental Classification, which applies on some classes of through freight from and to the Pacific Coast. A few of the State Railroad Commissions have also muddled things by establishing local classifications within their boundaries, but these are not of much importance.

Even now, after seventy-five years of study, the classification arrangement is not perfect. Each of the three big classifications differs materially from the other.

A universal uniform system will probably come some day. It almost came in 1890, when a uniform freight classification, prepared with much travail and friction, was approved by all the railroads in the country but one—an Eastern trunk line—which defeated the movement.

But changing the existing order of things is considered by most traffic men to involve pretty serious risks. They say that a uniform classification could be adopted only through interminable fights and compromises, that it would mean the changing of rates all over the country, and would upset business conditions mightily.

Methods of Agreement.

The classifications are made up and guarded by the classification committees appointed by the various railroads operating in the territories concerned. These classification committees are in session every working day from nine in the morning until five in the afternoon.

One part of their work is issuing rulings on the class certain commodities shall take. Local agents, bill clerks—even general freight-agents and traffic managers themselves—are continually being "stumped" on how to classify certain articles which do not appear to be listed specifically or to be covered by the frequent initials "N. O. S." (not

otherwise specified) placed after the designation.

When the highest freight official in the general office cannot tell what the classification should be, he refers it to the committee, and they give their decision.

Each classification, as has been said, contains between eight and ten thousand items. These are grouped under from six to fourteen classes. Generally speaking, whether an article in the classification takes the first—or highest—class, or the tenth, or fourteenth, is determined by its bulk, weight, and value.

But there are a lot of other things which the classification committees have to take into account. They have to consider whether the goods are crude, rough or finished; liquid or dry; knocked down or set up; loose or in bulk; nested or in boxes, or otherwise packed; if vegetables, whether green or dry, desiccated or evaported; the market value, and the shipper's representations as to their character.

Variety of Rates.

Also, they have to consider the probable cost of the service, length, and duration of the haul; the season and manner of shipment; the space occupied and the weight; whether in car-load or less than car-load lots; the volume of annual shipments to be calculated on; the sort of car required, whether flat, gondola, box, tank, or special; whether ice or heat must be furnished; the speed of trains necessary for perishable or otherwise rush goods; the risk of handling, either to the goods themselves or to other property; the weights, actual and estimated; the carrier's risk or owner's release from damage or loss.

For instance, agricultural implements set up—ready for use—take double first-class rate; lounges of bamboo or rattan take three times the first-class rate; ashes, brick, salt, sand, sawdust, etc., take the lowest or sixth class. All these are from the "Official" or Eastern Classification.

Cost largely governs the classification. The rate on silk is high, because it is valuable and takes but little space. Feather beds are not worth much, but they take up a lot of room; therefore, they pay double first class rates.

Value puts books, blankets, sixty-cent watches, etc., in the first class along with wash-boilers not nested. Nested wash-boilers take second class because they occupy less room. The reason why sand and sawdust and other bulky articles take the lowest class and rate is because they are cheap, and the lowest rate is "all the traffic will bear."

Another delicate point for the classification experts to decide upon is, for instance, if they conclude to charge crackers, in baskets, at the first-class rate in less than car-loads, what the same shall pay in full car-load lots. They take the fourth-class rate in such quantities, by the way.

Now, a car-load lot does not mean how much can be crowded into a particular car; it means, for one thing, how little the minimum car-load. In the East the minimum is 30,000 pounds, except in certain classes of goods, like church furniture, settees, and tables where the minimum is 10,000 pounds.

Why exceedingly nice judgment is required in fixing the classes on car-loads and less may be better understood when it is considered that the railroad must continually foster its business; that by means of shipping in car-loads, a big dealer can get his goods cheaper and undersell his small competitor. A wide difference between the two rates would hurt the New York jobber, for instance, who wished to reach directly the retail trade of the West, and it would favor the jobber in the West or South who required a low rate for his wholesale shipments.

Territorial Conditions.

One eminent expert—Judge Noyes, of Connecticut—is the authority for the statement that the "tendency of the 'Official' classification is to protect the Eastern manufacturer by reducing the difference between rates for retail and wholesale shipments; while the inclination of the 'Western' and 'Southern' classifications is to promote the interests of the wholesale dealers within their territory.

The fixing up and keeping in order of

the official classifications of goods is complex enough; but the making of the freight tariffs which apply to them is a task so enormous on each line, and the result—that is, the relation between the cost of the service and the price charged for it—is so wavering and inexact, that rate-making is still one of the greatest problems of railroading. Enough has been written and printed about it to fill a good many book-shelves, and there is as much diversity of opinion as to the proper method of arriving at the cost of hauling goods, and how much to charge the customer for it—the freight-rate—as there is about the right road to heaven.

Years ago, before the birth of the Interstate Commerce Commission, this business was handled by railroad associations which were known by the shorter and more expressive word "pools." Each of these was presided over by a high-browed expert who actually knew more about the science of rate-making than any of the railroad officials had had time to learn, and, therefore, received an enormous salary.

These associations were made up of the competing lines in each territory, and it was their aim to agree upon uniform rates between various points. Further, if one line should get more than its proportion of earnings, it should pay over the excess to the other lines.

End of Railroad Pools.

Rate-cutting was a frequent feature, notwithstanding all these precautions. Legislation finally abolished all railroad pools, and now the task of deciding on joint rates is part of the day's work of the railroad traffic department.

The rate department on each large road employs continuously from twenty to forty skilled men whose sole business it is to try to arrive at the probable cost of hauling certain merchandise. Their conclusions furnish a basis for the future arguments between the different railroads concerned as to what rate to put into the tariff, and what share of a through rate each road shall receive for its haul.

There are two classes of tariffs: those based on the classification, which tell how many cents per hundred pounds to charge for each class of freight between two points, and those which are arbitrary rates independent of the classification. These latter are called commodity rates.

Factors in Rate-Making.

In the making of a freight-rate, entirely different elements get into the center of the stage from those concerned with the building up of the classifications. As one writer puts it: "The classifications determine the relation of charges; the tariff, the specific charge. Different roads with the same classification must make very different rates for similar services."

Here are a few things which traffic people have to keep in mind in arriving at a rate basis.

Are there heavy grades on the line, or even a mountain range to cross, while the competing line runs through comparatively level country? The density of the traffic also has a good deal to do with determining the rate.

The road that runs through deserts or a country that is sparsely settled must charge a high rate—comparatively—or else the receivers will get it. So much of the railroad's expenses go on whether it does business or not that when it comes to figuring the cost of hauling the various classes of freight, the usual custom is to regard this total expenditure as a whole as a basis to figure from.

But, great as the science of statistics applied to railroading has become, it is still impossible to determine exactly what it costs to haul any particular commodity any particular distance.

There are a few basic principles in rate-making that form the solid ground from which the experts work. One of these is that commodities that move in solid train-loads over long distances can be carried at a less cost per ton per mile than those that are hauled in separate car-loads on trains that carry different kinds of freight, or freight that moves in less than car-load lots.

Therefore, the lowest rates are always between the great consuming and distributing centers, like Chicago and New York. The rates between these two great cities have been arrived at after years of fighting and compromise between the

mighty warriors in the field of transportation and between the communities affected as well. They are called "one hundred per cent rates."

In the same way the rates between intermediate cities and territories have been established as percentages of the one hundred per cent rate. New York to Pittsburgh is sixty per cent of the Chicago rate, for instance. Cleveland is seventy-one per cent, Detroit seventy-eight per cent, Indianapolis ninety-three per cent; Peoria, beyond Chicago, one hundred and ten per cent, and St. Louis one hundred and sixteen per cent of the New York to Chicago rate.

The Hundred Per Cent Rate.

Rates from Boston and interior New England points, rates from the territory surrounding Buffalo and Pittsburgh, and from other interior points are also established in relation to the New York-Chicago rate, as well as rates to and from Norfolk and other points in Virginia. Rates in the opposite direction—from Chicago to New York—are also on the same one hundred per cent basis, upon which are likewise made practically all the West to East rates from points on the Mississippi and Ohio Rivers and the territory to the north and east of them.

It is interesting, just here, to tell what happens when a railroad rate on an article of general production and consumption is reduced or increased between an Eastern and a Western point in the territory specified. All railroad rates are reduced between all Eastern and all Western points; rates for combined lake and rail transportation are cut; rates via the Erie Canal and the Great Lakes are lowered to maintain the proper difference between them and the all-rail rates and the rail-and-lake rates; rates on through traffic from and to points west of the Mississippi River and from and to points south of the Ohio River come down; rates may also be decreased to and from points in Canada. Experts say that the change in but a single one of the rate bases mentioned has forced the changing of not less than eight thousand rates.

This shows what a delicately balanced house of cards is the rate system that various railroads have so painfully and laboriously built up between themselves, and how easily disturbed. Touch the rate on iron products out of Chicago, and Joliet furnaces and Pittsburgh railways will be thrown out of gear.

As a consequence of a recent change in rates from Baltimore to Atlanta, and Louisville to Atlanta, three-fourths of the railroad rates in the United States were affected, and the total changes in rates necessitated by this initial change were not less than one hundred thousand.

The rates on the Pacific Coast are beset by the same complications as those east of the Rockies, and must be kept in adjustment with the ocean rates as well. The merchants in the vast territory west of the Mississippi River, in brief, are all competing for trade in that vast territory.

The rate adjustment now existing there is the result of all this competition between themselves and among the railroads. Yet, changes have to be made continually to meet the fluctuating conditions of industry and commerce, and such changes are the things that call for the exercise of the utmost diplomacy and experience of the traffic on the great lines interested.

Even the commodities themselves compete in rate-making. It is a general principle that crude or raw materials should, other things being equal, pay lower railroad rates than what is manufactured from them. For instance, the rates on pig iron are lower than on steel blooms and ingots, though the only difference between them is that the latter are worth a trifle more. A change in the rate of any raw material, therefore, affects every article manufactured from it.

Invention of a Freight Clerk.

The system of "one hundred per cent rates" explained above was devised by James McGraham, a clerk in the freight department of the Pennsylvania Railroad. It simplified enormously the making of tariffs, and also removed the complications surrounding the fixing of rates from points common to two or more routes, via either of those routes to another common point.

A city like Chicago or New York is called a "basing point." That is, the

rate to such a point is one dollar, for instance. To points beyond that, within certain territory, it is such and such a percentage in addition.

Large cities are not necessarily basing points, however; but geographical centers of vast freight movements are also taken. Some of these are Peoria, Davenport, Dubuque, Sioux City, St. Joseph, and Leavenworth.

The result of all this complicated system of rate building that has been briefly outlined is that every freight official, big and little, and even the traveling representatives of the freight department and the station-agents of the big modern railroad, are continually collecting information leading to readjustment after readjustment of freight-rates.

When it is finally decided by one that a rate should be changed, the matter is carefully calculated statistically in the rate department. The result is submitted to the head of the traffic department, and he discusses it pro and con from every point of view with those who have expert knowledge bearing on the matter.

After it has been thoroughly gone over and the arguments tested, link by link, why it should be changed, the traffic manager, like the ambassador and diplomat of one great nation treating with another, takes it up with the road or roads interested, cautiously or vigorously as the case may warrant. Then comes the test of the relative abilities of the various traffic managers.

The same difficulties of adjustment apply to the commodity-rates as to those governed by the tariff and classification —in fact more, because each relates to a specific article of merchandise. The much greater part in bulk of the freight transported in the United States moves at commodity-rates, although the greater gross revenue is from the goods carried at class rates.

These commodity-rates apply generally on heavy or bulky merchandise or material like grain, lumber, coal and iron.

Commodity-rates are lower than class-rates for a variety of reasons, one of the principal of which is competition with the water routes of transportation. Most of the heavy transcontinental traffic moves under commodity-rates.

These rates also are especially favored by railroads wishing to foster new industries along their lines or to enable manufacturers to reach out into new markets. Not infrequently a railroad will make a low commodity-rate between two given points only, and leave otherwise undisturbed the class-rates in the same territory. That is because they deem some individual industry or group of industries will be fostered thereby.

The railroads in this matter of rate-making really play the part of paternally protective governments who desire to foster growing enterprises within their territories, and do so by raising or lowering the customs tariffs.

Of course, commodity-rates are frequently withdrawn after their object has been accomplished. It is easier to do this than it is to change the tariffs based on the class-rates which may affect a less restricted region.

A railroad, however, as might be gathered from the above, is far from a philanthropic enterprise in the fostering of weakling industries. It is a public enterprise for private gain, and one of the principal bases for the fixing of a rate is designated by that widely abused and greatly misunderstood term, "what the traffic will bear."

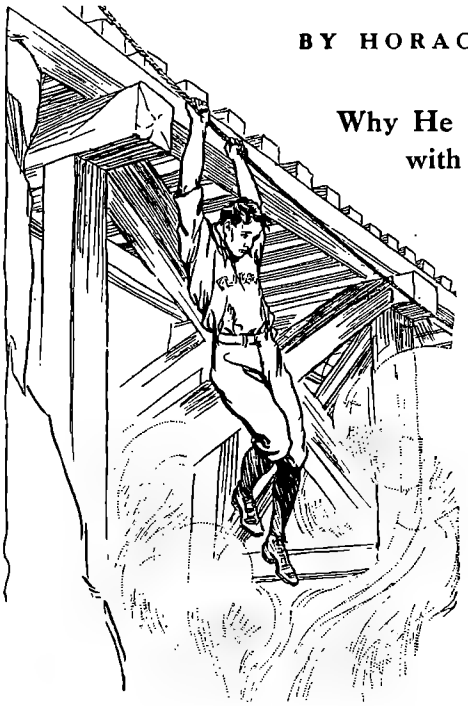
A freight charge has to be, in the long run, no greater than the difference between the cost of production at the place of origin plus the merchants' profits and the price which can be obtained for the commodity at the place of destination.

The railroad has to make its rates so that it may earn a fair average profit, and yet so that the greatest volume of goods may find a market over its lines. If the rates on dry-goods and on coal were the same, the road's total revenue would not pay its expenses; if it attempted to charge as much for hauling coal as for dry-goods, the coal-cars would not be in use at all.

SMOKE'S LOST INDEPENDENCE.

BY HORACE H. HERR.

Why He Signed Up the Matrimonial 31 Order with Molly Stevens, After a Fourth-of-July Baseball Game.



SWUNG BACK AND FORTH FOR A MOMENT.

SEEING as how Flagstaff, Arizona, is several train lengths removed from Bunker Hill and the rest of them famous Revolution stations, one don't expect it to celebrate the Fourth of July accordin' to the standard book of rules. But I sure remember two celebrations down there that were full tonnage when it come to the genuine fireworks.

The first one was the time old Lon Kingsley, from Shevelon Creek, brought that yaller hoss of his'n over to race a flea-bit gray owned by an Indian trader at Keam's Cañon; and the other was when Smoke lost his independence and several large chunks of his epidermis.

After that hoss-race the town turned out and give the stake-holder a decent funeral, and the company doctor was pickin' bullets out of four other fellows for a week.

Seein' as how the doctor didn't know much about the workin' parts of a cow-puncher, havin' been workin' on railroad men all his life, it hain't no wonder that two of the fellows didn't take kindly to his back shop and passed in their checks.

I was right alongside of Lon Kingsley when the celebration started, and after I see him draw one of them smoke-poles with a muzzle on it as big as a diamond stack, I happened to remember that I'd forgot something over to the roundhouse, and as I went right over there by the shortest route, to see what it was, I wasn't present at the concludin' performance.

Every one who stayed said that it was worth the money, but when the prosecutin' attorney was huntin' for witnesses he couldn't find enough to convict anybody, and the town council decided that, for the public safety, they would have to lock the switch on hoss-racin' in the future.

Of course, the Fourth of July has got to be celebrated some way or another, and with hoss-racin' off the time-card the town voted for baseball. The first year a nine from the roundhouse took all the steam out of the brakemen's nine; and the next year the soldier boys from Fort Apache came over and coupled onto a double-header victory by beatin' the roundhouse in the morning and the brakemen in the afternoon.

But the next year we had Smoke Dugan playin' with us, and we picked one good team from everything between the high switches. We invited the uniformed boys back, believin' that we would be able to tie a large piece of hardware onto them. They come over, and brought a band with them, and there was a special from Ash Fork and another one from Winslow, and I'll bet my meal-ticket against a blind gasket that Bunker Hill or Philadelphia couldn't done the job of celebratin' any better.

Smoke was the whole works that day—engine, cars, and caboose. When it come to railroadin', I can't say that Smoke was very much. I think he must of got his early experience drivin' a mule-car, for when Sam Parks give him a job in the roundhouse he didn't know the difference between a steam-chest and a sand-dome.

Everybody looked on him as a harmless sort of cuss, good-natured, with a facial map about as handsome as a Colorado potato.

For a few days the gang let him make mileage running after left-handed monkey-wrenches, screw oil, and keys for the steam gage, until the day Shorty Studer sent him out to polish the whistle on 660, so that the tone would be more shrill.

Smoke polished that whistle for two hours, and the hostler, being in on the deal, kept a little fire in the box, and enough steam on, so that Smoke could test the whistle semioccasionally. Of course, it was a little warm on top of that boiler, and the whistle was uncomfortably hot in spots; but Smoke was there when it come to sticking with the job, tooting that whistle every ten minutes, until it drew the attention of old man Parks himself, and he went down and put the boy next.

Shorty Studer had one real fight that I know of. It didn't go to a finish because the gang stopped it, but Smoke was going strong; and after that he had more real work to do, and less light mileage.

He hadn't been workin' more'n two weeks until he got out with the ball-tossers. From that day on he had right of track over everything in town. Sam Parks himself, beside being one of the best master mechanics on the pike, was some judge of ball playin', knowing some of them perfessional players back East by their first name.

The first time he saw Smoke Dugan passin' the pill over the pan, he turned to me and says:

"That fellow's a world-beater. He's got steam to burn."

Of course, I knew that the old man knew that steam won't burn, so I just smiled and let it go at that. Steam wasn't the only thing Smoke had. He could twist that ball around so it would do a reverse curb that made the Crookton loop look like a straight track.

He could send that ball up to the batter on a fifty per cent grade; he'd make it come straight half the route, then send it off on a side track; and the batter would break in two trying to hit something that wasn't there.

After we had seen him workin' for a month or so, we all had an idea what was goin' to happen to the soldiers on the Fourth.

But of course none of us fellows was figurin' that Stevens girl in the results of the game, seein' as how she wasn't one of the players, and only one of the enthusiastic fans; but I reckon that a man never makes a record run but what there's a woman mixed up in it some place—if it's no more than a woman telegrapher delivering him an order.

All of us fellows who hadn't signed up the matrimonial 31 orders were willing to divide our checks with Molly Stevens.

She was so good-lookin' that every fellow running out of Flagstaff was whistlin' to her every time he went by the house. But she kept us in the chain-gang for her favors, running us first in and first out, being plumb nice to all of us, and puttin' in her time keepin' house for her father, just as if that was to be her regular run for the rest of her days.

Of course, seein' as how Smoke Dugan was only a machinist helper, and so blamed homely, we all thought that as far as being called for a place in Molly's affections was concerned he was clear down at the end of the extra list.

I guess there was more than one fellow who felt his drivers slippin' when Smoke showed up for the big game, with "Flagstaff," in spankin' new silk letters across the front of his uniform, a loomin' up like an electric headlight on a dark night.

When I asked him where he filed his requisition for such supplies his face got as red as his uniform, and it was the same color as a danger-flag—and he managed to make me understand that Molly Stevens had put the letters there for good luck.

I took the slow sign right there—but then, that ain't got anything to do with the celebration.

I bought me a first-class ticket for the big game, and went inside the ropes. All the time the boys were breakin' in for the real run I kept thinkin' that it would of

been a blessing to have been born more of a ball-player and less of an engineer, and the big game finally started, and Molly Stevens hadn't showed up.

When that girl wasn't way ahead of her running-schedule for a ball-game, it was because the track was soft; and when the game started, and she hadn't registered in, I was plumb-sure there had been a wreck.

But Smoke was shootin' through the pellet just as if everything was all right, and it wasn't long before things got so interesting that I forgot everything but the game.

The baseball track, or switchin' yard, was right across from the depot. It was just a generous chunk of the flat, with a rope around it. Any one who stayed outside the rope was a piker; so everybody paid his two bits and came inside. I reckon no man ever got a bigger two bits' worth of baseball any other place in the world.

The soldier boys had imported a pitcher from Albuquerque, and he was plumb good. When he started to throw that ball he got in motion like a rotary snow-plow, and when that ball hit the catcher's glove it sounded like a Mexican switch-crew couplin' into a dog-house.

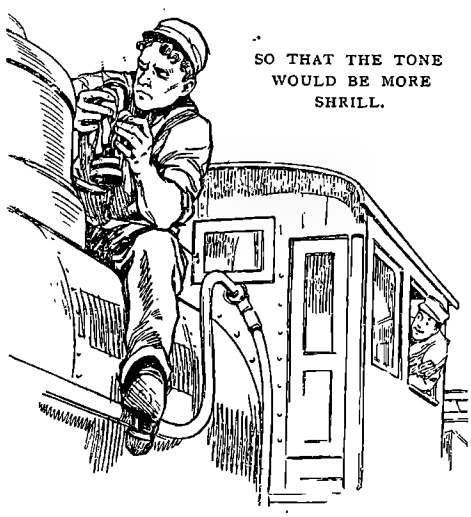
Why, our boys had about as much chance of hittin' that pill as a hand-car has of beatin' the limited on a level track, and at the end of the fourth trick our boys hadn't been outside the yard limits, 'ceptin' Reub Downs, who got so scared he jumped in front of the ball and got the right-of-track to the first sidin'; and even he killed so much time there that he got twelve hours late on his runnin' orders and lost his rights. There we was with the inside of a link to our credit, and the soldiers down on the board with one score.

Believe me, Smoke was using the short stroke, with sand on the rails, and beatin' her on the back all the way; and if it hadn't been that Chuck Burgette cornered an ant-hill when he was about to put the vent down on an easy pop-up, the soldiers would have been juggling ciphers too.

Then it come down to our take of the fifth trick, with Chuck Burgette first out, and Smoke marked up as the second section.

Chuck managed to get the ball just outside the main line between the second and third station and reached the first corner, and then— Well, among other things, old man Parks lost four dollars and ten cents.

He was standing up on the grand-stand seat, with his hands in his pockets, when Smoke came up to bat. After the



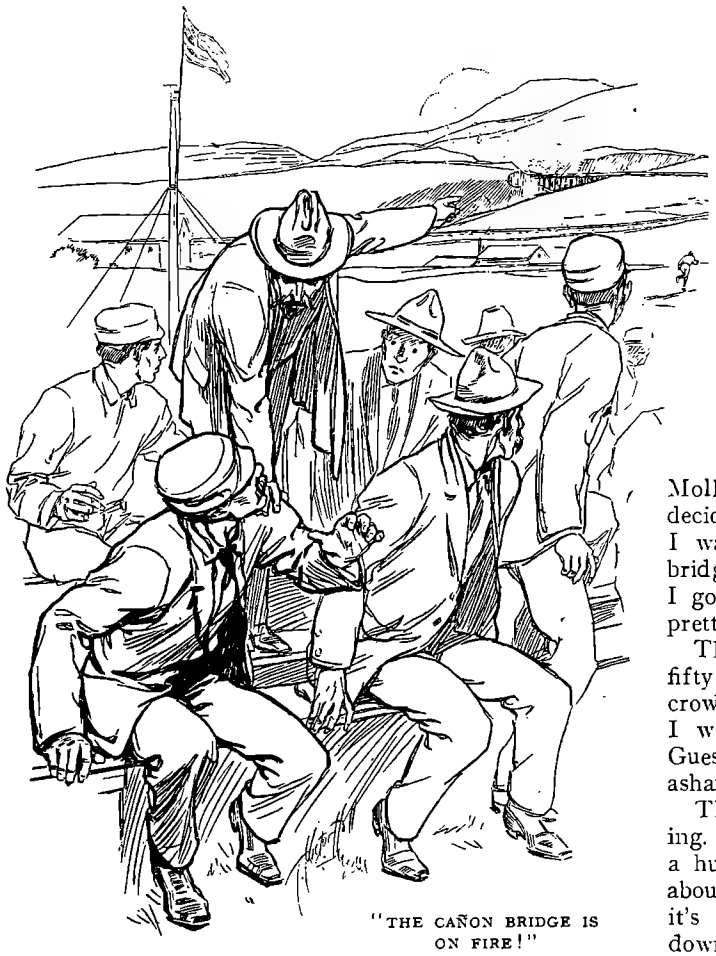
SO THAT THE TONE WOULD BE MORE SHRILL.

human rotary had let go the ball, there was an awful crash; and just as soon as the old man realized that Smoke's bat and the ball had met head-on, and that the ball was a doin' its best to make its get-away to Utah, he jerked his hands from his pockets, grabbed his hat, and did several things unbecoming the most dignified master mechanic in a respected community. When he pulled his hands from his pockets he jerked all his money out too, and got so excited that he didn't know it.

I noticed that Smoke had asked some of the boys the time between each inning, and, just before he came up to bat, I looked at my watch and noted that it was just twenty minutes until No. 22, carrying all those Eastern tourists in the finest string of varnished wagons ever on a rail, would be pullin' down from Bellemont.

I jes' says to myself, "Those Eastern sports will get a glimpse of a plumb good ball game." Then came that crash, and Chuck Burgette cut down the right-

of-way, giving each station the go-by as if he was the only train operatin' on that piece of track. When he crossed the plate with the first score, old man Parks and I was lookin' for Smoke. He had gone plumb crazy. Instead of following the rails to that first sack, he had jumped the rope, and was a good hundred yards up the railroad track, cap in hand. If he had been going any faster he wouldn't have been touchin' even the high spots.



"THE CAÑON BRIDGE IS ON FIRE!"

Old man Parks reaches down and grabs me by the shoulder. For a minute I thought I had been caught between the bumpers.

"Davis," he says, kinda husky-like, as if his flues were stopped up, "the cañon bridge is on fire!"

About that time everybody saw the smoke less than a mile up the track, and knowing that the bridge wasn't nothin' but wood, most of the spectators started for it.

Parks led the bunch. I carried more tonnage than the old man, and I stopped long enough to look at my watch. It was three-twenty. No. 22 had been out of Bellemont just two minutes if she was on time, and with Stevens pullin' her, it was a good bet that she was right on the dot.

Stevens—that explained it. I knew right away why Smoke had been watching the time. Mollie Stevens! Well, I decided of a sudden that I wanted to get to that bridge myself, and, after I got under way, I made pretty fair time, too.

The old man led me by fifty yards, and I led the crowd by a hundred, and I was the last to start. Guess there's nothin' to be ashamed of in that record.

That bridge *was* burning. The cañon there is a hundred feet deep and about sixty feet wide, and it's as straight up and down as the sides of a box car. The smoke and flames made it impossible to walk across. The ties were burning; one rail had already begun to twist; and there was Smoke in his red uniform, the old man without his hat, and me minus everything I could discard, includin' most of my wind.

"It's almost time for 22," said Smoke; and while the old man quickly pulled his watch, I broke the silence tryin' to inhale a little air.

"In twelve minutes," gasped the old man. That's every word that was spoken.

The track between Bellemont and Flagstaff is so crooked that a snake would break its neck tryin' to follow it. It's down the mountainside, and if a fellow's pullin' a long string, he has to slow down his engine to let the caboose get out of the way.

Less than fifty yards west of the cañon bridge the track goes sharply to the left along a precipice; once around this curve there is a mile stretch, the longest piece of straight track between Bellemont and Flagstaff; but, with no flyin'-machine handy, and that bridge nothin' less than the slatted gates of a chasm, it didn't look as if there was a chance to get a signal around that curve.

I'm sure strong for evolution since that Fourth of July. There's no doubt but if you trace the line back far enough, you'll find you're uncomfortably closely related to an ape.

Now, there was Smoke, for instance. When he saw that one cable into which the telegraph-wires were gathered, running alongside the bridge, he reverted to type right away.

There wasn't nothin' human about him. His face wasn't natural; he was just an ape dressed up in a red uniform, goin' across some ravine on a grape-vine.

Before the old man or I knew what Smoke was about, he had stepped out on one of the side girders of the bridge, balanced there a moment, and jumped toward the cable, six feet away. He caught it with his hands, swung back and forth a moment, then started, hand over hand, toward the other side.

I don't reckin I'm from the same race of apes 'cause it made me feel sick and dizzy to see him swinging there, with the flames and smoke trying their best to reach out after him.

I didn't like the sight of it, but I couldn't help lookin'; and as he neared the other side, and his steps with his hands became slower and shorter, I couldn't help a sayin', "My God! If he just had a tail to help him hold on."

'Course, that wasn't nothin' nice to say at that time, but the old man didn't even say that much, and the crowd, which had got up, just stood and watched and held their breath.

He was all but over. On the far side the cable was strung from a pole so that it was about twenty feet above the ground. He was right over the far bank when the bridge settled and one of the big uprights fell, crashing into the cable, and snappin' it in two as if it had been a string.

I just turned my head away, but that didn't keep me from hearing the sound of a whistle which came down the mountainside.

The crowd began to yell, and I turned around again. Smoke was standing across there, on one foot, about ten feet from the cañon's brink.

His face was bleeding. He didn't look like Smoke at all. He was pullin' off the red shirt of his baseball uniform; and if he heard the cheering, or the roaring of the fire, or the crash of falling bridge timbers, he didn't let on.

Down on his hands and knees he went, and then the smoke and flames from the bridge cut off our line of vision. The old man and I moved back from the heat, and we didn't either of us make any remarks addressed to the crowd.

I don't know how many pay-days went by before I heard the long whistle which told me that Stevens was coming into that straight track, and I knew that the old man and the crowd was waiting for that little *toot-toot* that would tell us Stevens had the signal.

I was just about ready to send in my application for the pension-list when it came.

Well, I looked at the old man, and he looked at me. A moment later an engine pilot, a smoke-stack, and a number-plate poked into view just at the curve—and stopped.

That was a good celebration we had in Flagstaff that night.

All those Eastern folks from No. 22 came round by the trail, across the cañon, and joined us. There was red light from the roundhouse to the station and clear up the main street, and they kept sputterin' as long as the supply at the storehouse held out.

I understand there was some speech-makin', too; and that Fort Apache band sure did cut up with them soldier airs, and Smoke got in in time to see the finish.

We went around the trail, a good two miles, and brought him in with the town

GOT SO SCARED HE JUMPED IN FRONT OF THE BALL.

bus; and as the bus wasn't big enough to accommodate the whole town, everybody stayed behind but the old man and the company doctor.

It was after dark when the bus backed up to the one-room emergency hospital, but that didn't keep me and the rest of the town from bein' there; and it wasn't dark enough to keep me from seein' that Molly Stevens and her father got out of the bus.

Then I remembered that Molly had a habit of making trips with her father when he had to take his run out or be on the road on Christmas, the Fourth of July, or her birthday.

An hour after the arrival of the bus, the old man came out of the hospital, walked over to the depot, where, from the apex of a truck, he delivered the real superior goods in the way of a Fourth-of-July oration.

He paid his compliments to the spirit of heroism for which America is noted, and made a few remarks regarding one Smoke Dugan, who, at that moment, was resting as easy as one could with a broken leg, a lacerated face, two badly mutilated hands, and minus several inches of skin from various spots on his anatomy.

Those remarks on Smoke started the biggest night of cheerin' I ever lived through. It got so noisy I had to go over to the roundhouse and set down by an engine that was blowin' off, to find a place quiet enough to think.

When the old man got down from the truck after the Daniel Webster stunt, he says to me, he says:

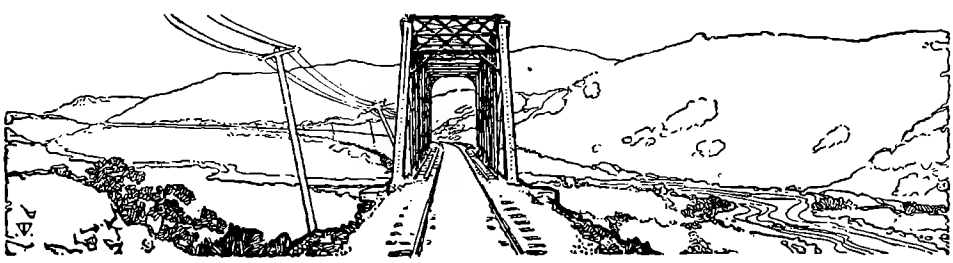
"Davis, this is a real Fourth-of-July celebration; but, if I am any judge of human nature, the fellow everybody's cheerin' has just lost his independence."

Seein' how at times I have the shadow of an intellect, I knew what he meant, and I says:

"Yes, sir, Mister Parks, and he deserves the best lady in the land."

"And a better job," added the old man, as he walked away into the crowd.

And the ball game! They called it a tie. One to one in the fifth. They're scheduled to play it off next Fourth, and, if I'm any place this side of Halley's comet, I'll be right there. Believe me, it will be some game.



Making Up Lost Time.

BY JOHN WALTERS.

WHILE a general impression exists among laymen that making up lost time means dashing down grades and around curves at a mile a minute, with a wide-open throttle, maximum speed laws and time spotters make such a performance somewhat risky.

How the lost minutes are to be caught up and pushed back into eternity under the engine drivers, is a problem that has brought gray hairs to more than one eagle-eye, and is more than ever the great question that perplexes engineers.

Now and then the regulations are broken and no one is the wiser—but it is only the engineer who saves every second that might have been wasted in starting and stopping, and who plans the speed of his run down to a nicety of seconds and rail-lengths, who really succeeds in these days of fast schedules and limited trains.

The Many Changing Factors Which Must Be Taken into Account by the Man at the Throttle, in Solving the Brain-Racking Problem of Bringing in on Time a Train That Is Late.

THE reputation of having its trains on time is one of the most important assets of a railroad. Delays, however, are liable to occur when least expected. For a thousand and one reasons a train may fail to reach its destination at the moment the schedule calls for. It may be held up in a block by some obstruction ahead, the rails may be slippery, there may be a hot box, a fast freight may get in the way—this has been known to happen—brakeshoes may be tight, and at certain stations time may be lost in the handling of baggage. More frequently than the public dreams of, there is time to be made up. How is it done?

It is by no means as simple as it looks. The days are long past when the man in the cab could drive ahead at reckless speed—" go through the curves instead of around them," as one old-timer said, and rush the train along with the single idea of winning back the lost minutes as quickly as possible. Not many of the railroads will tolerate anything like that nowadays. There are strict orders against making up time in the spectacular way in which most people think it is done.

Railroad executives have come to believe that if the public thought for a moment that the engineer was allowed to dash ahead with a train and to rely entirely on his own judgment as to the margin of safety, the passengers, present and prospective, would be terrified, and the railroad would get a bad name. " Absolute safety " is now the open motto of railroad managers. Not a single chance or risk must be taken.

Maximum Speed Rules.

Not only are time schedules made so that as large a margin as possible may be left for delays, but over every mile of track there is clearly indicated the maximum speed at which a train can be run. Where there is a stretch of steel, for in-

stance, where time may possibly be eaten up at the rate of eighty miles an hour, the directions are that sixty miles shall be the top speed. If an engineer is found to have transgressed, he suffers a bad quarter of an hour in the superintendent's or trainmaster's office.

But it is always the pride of every railroad to be on time. The New York Central made a public announcement not long ago that over a given period of several months their Twentieth Century Limited, to and from Chicago, had been on time ninety-nine and a fraction per cent of its runs.

Planning a Run.

The Erie takes vast satisfaction in its official statement lately that it was ahead of all railroads coming into New York in making a record of a fraction over ninety-six per cent of all of its trains being on time.

An engineer must not be caught breaking rules. He must run with the avoidance of every risk of preventable accidents. If he wishes to be thought a good man in his business, and a credit to his railroad, he must manage somehow to get his train in on time, to the dot, with unfailing regularity. Thus it is that a curious set of unwritten laws has come into existence among the engine crews. The substance of these is that lost time must be made up somehow.

Stretching the rules in regard to fast running is officially not countenanced, if known, and yet the man in the cab who slips through on time, despite every obstacle, keeps the best run, and ranks highest in the regard of his superiors, from the president down.

As a matter of fact the engineer who is not capable of planning successfully in every way how to get back the lost minutes is regarded as lacking in ability. Hardly one of them, however, will acknowledge this to an outsider. All preface everything they have to say by the statement that they are held down by the official maximum rates of speed.

The executives also make the same point. This is strongly substantiated by the fact that many railroads in the East send out men who might be called time spotters. Their business is to lie in wait at points which it is believed present peculiar temptations to the engineer for the breaking of speed laws and to catch him in the act.

The result is that the matter of making up time on the Eastern roads—the Western still give considerable leeway—has become a very complicated one. It is a problem that requires the utmost cleverness and skill in emergencies.

The factors of the problem are continually changing; the engine, the track, the weight of the train, the weather, etc. The success of the solution depends more than all else on the personal skill and experience of the individual engineer. Making up time does not consist of a series of hair-raising dashes over long stretches of road. It is done by gaining it back a moment here, another there, and so on.

It takes every atom of ingenuity to do the trick. That chances are taken now and then cannot be denied, but these chances are not so great as they might seem to any one who did not possess an intimate knowledge of the strength and power of track and engine, and a nice regard for the laws of gravitation.

Firemen often brag more about making up time than the engineers. "Finest feller on the road to fire for," one of them will say about the man on whose left-hand side he works.

"He's no hand to make lunch-counter runs. He don't tell the girls at the beanery how it happened, so I have to," he will conclude with a grin.

He Got In on Time.

Making up time is more difficult on some roads and on certain hundred-mile stretches than on others. From New York to Port Jervis, for instance, is eighty-eight miles on the Erie. The usual running time is about two hours and fifteen minutes, including stops. This part of the Erie is full of curves, and if an engineer makes up ten or fifteen minutes on this run it is considered pretty good work.

The record of time regained there is twenty-three minutes. The 142 miles from New York to Albany over the Central is a fairly straight bit of track. "Big Arthur" Allen, who brings the

Empire State Express from the capital down to High Bridge, has left Albany forty minutes late—but here is the story as they tell it around the master mechanic's office:

"The super ripped around that they were forty minutes late in pulling out, and Big Arthur sat in the cab and never said a word.

"'Now,' says the superintendent, rather sarcastic, 'I suppose you know that this is the Empire State Express you're running?'

"'Yep,' says 'Big Arthur.'

"'Well, do you know what time she's supposed to pull into High Bridge?'

"'Yep,' says Big Arthur again, and that's all he did say. But, holy smoke! how he did run! Jim, the fireman, kept her hot. They say the porters on the private car were scared green. A hundred miles an hour some of the way. She came in on time to the dot."

A Veteran Engineer.

Charles H. Mygatt, of the Erie, has probably run an engine longer than any other man in the United States, and has made up as much time as any engineer in the service. Certainly there is no other engineer who has served on company so long on one division of the same railroad.

It is fifty-three years now since Mygatt got his engine. He started in 1852 as water boy, and four years later became an engineer. Railroads were young in those days, and so were the engineers. Just lately, having reached the age of seventy, he has been retired, but still continues in the railroad's employ, in the yard service at Port Jervis.

Mygatt is the typical mechanical expert. His gray chin-beard gives him an air of picturesqueness. Big-framed, ruddy-cheeked, clear-eyed, he does not begin to look his seventy years. Riding behind the thoroughbred mare he drives at a brisk clip over the country roads recently, he told me of his experiences in making up time.

"Let her alone when she's doing her best," said Mygatt. "Don't drive her at first. An engine's like a horse—the more you worry her, the less she'll do."

The veteran's thoughts began to wander back through a long vista of yesterdays. He could see himself again and again with a heavy handicap of lost time to be won back.

To do this he had to cajole and persuade the vast and complicated mass of steel that he drove. It was not simply a huge bulk of metal that was governed by purely mechanical laws, but something that seemed half-human that needed a pat of approval now and then, and a thorough understanding, if the best results were to be obtained. The machines that he had handled during his more than half a century of service were not so different from the mare that he was driving now.

"Let her alone," he said, "when she's doing her best.

"There's a great difference in men when it comes to running an engine," went on Charley Mygatt. "Never forget that. Time is made by the man who knows how to get the most out of his engine. It's the little things that count then. You might not think, perhaps, how some will use up time at stations. Yet, as much as five minutes may be gained in the skilful making of a stop.

"One man will shut off steam long before he needs to, and his train will come into the station slowly. Another, who understands the road and his engine, is cool and watchful, will keep up full speed to the last possible second. He will calculate so that with not a particle of time lost he will bring his train to a stop precisely where he should.

Saving Every Moment.

"Yes, in a run of a hundred miles you keep figuring little matters like this, and you hurry right along. We know just what we are doing, just what we can do, and when time is to be made up we can tell every second how much we are gaining. An engineer doesn't keep taking out his watch; he can feel to the instant how the miles are being eaten up.

"Keep steam up to the maximum pressure," the old engineer went on. "That means having ready for instant service at every second all the energy there is. That's how to drive an engine, and, let me say that not every engineer appreciates it.

"But you can't make a really good run without it. Everything depends on the man who is firing for you. There are some firemen who can't keep up steam. One will go too fast at the start, and tire before the end of the run; another will be too slow all the way, and so on.

"Making up time looks easy. People who don't know much about railroading think that all a man has to do is to drive ahead, thinking of nothing but keeping at top speed. I might as well let this mare run away; that would be the same principle.

When to Go Slow.

"I know what an engine can do, even better than the speed I can safely get out of this horse. When I have had time to make up I have planned it all out from the start.

"Risk? No, not if a man's competent and knows his business; track, maximum speed orders, and all that. It doesn't do for a man in the cab to get the reputation of being reckless.

"A little of that, and when anything does go wrong you can imagine where the blame lights first. No, a man's got to make good in some other way—by thinking and calculating. A railroad wants a man who can bring his train in on time without taking unusual chances.

"When you're starting out to make up time there are certain places where, for your own safety, you've got to go slow. An engineer must know these. Sometimes he doesn't. One day, on this very division of the Erie, I was running at a pretty good clip. This part of the road is full of curves, and there is one that was pretty bad.

"The train I was hauling was an important one. We had started late, and there was a lot of time to be made up. My engine was in the best of condition. We struck that curve a bit too fast. She made a jump and came down on the rails with such a jolt that I thought she had broken every spring in her.

"Yes, she came down all right, and we got in on time, but I was a little nervous for a second or so. But I knew what my engine could do, and she didn't disappoint me.

"That's the whole secret of running and making up time. You must know your engine like a wife. Then, when it's necessary, she'll come up to the scratch. You can't stay on any road for fifty years without understanding that. Each engine is different from all the rest, the same as women are, and they even vary in temper from day to day.

"Another thing to remember is that a good part of the secret of making up time is never to attempt it until you know that your engine is in just the right condition. The engineer must test her as he starts. He can usually tell in a moment or so. Everything depends on how she responds. In a few miles you know whether you can count on her to do her prettiest.

"Some years ago I had a party of officials of the road, and it was necessary to make some fast time. As we pulled out of Jersey City I planned just how I was going to do it. I knew we would have to take some of the curves at the maximum of speed, and I did it without exceeding a fraction, though it broke all the dishes in the diner.

"One safe way to make up time—the one that is most commonly followed—is to strike the best gait you can, and keep it up. It's surprising how many minutes you can save by close attention to that simple method.

A Narrow Escape.

"It's harder nowadays to make up time than it used to be. Years ago the schedule for most of the runs used to be about thirty miles an hour. That left a big margin when you were behind time, as it was possible to hook her up to sixty or seventy miles an hour here and there.

"Now, those same runs are scheduled at forty or forty-five miles an hour, and at a good many points where you might gain time there are maximum speed orders out against you. It takes a keen engineer to do the trick of making up ten or fifteen minutes in a short run. Out West, though, on those long stretches of level track, it's different.

"In the course of years there are some exciting moments. Yes, they do come, but engineers never think much about them once they are past. Just a part of

the day's work. Here's one experience I happen to remember:

"It happened some years ago when I was a comparatively young man. We were making up time in great shape. No maximum speed rules in those days. It was up in the mountains, where the simple and compound curves are as thick as blackberries in summer.

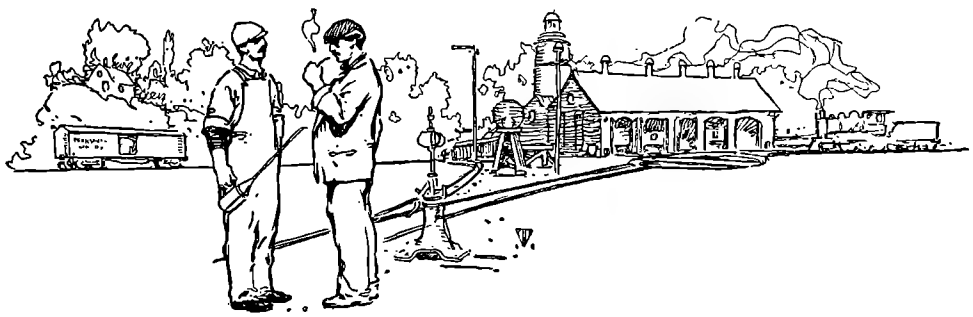
"I wasn't taking any chances, but I was making my engine do the best that was in her. Danger? No, not when the engineer knows his business. Everything depends on that. We had just hit a compound curve, and were negotiating the first twist when the front drivers jumped the track.

"Some minor official of the road was with me in the cab. I don't remember now just who. I only recall how scared he was. I suppose any one who didn't understand engine driving would have been. It looked worse than it was. It simply required a moment of careful handling.

"'Wait till we get on the other curve,' I yelled; 'can't do anything on this track.'

"With the front drivers still off the rails we whirled around that curve, and on to the next, and then, as my friend in the cab held his breath, the front drivers dropped back on the steel, and the engine jogged along the same as ever.

"I wouldn't care to try to duplicate that feat every day in the week, however. When those things happen we seldom talk about them afterward. We forget them, and they don't get on the official records."



TRAIN DESPATCHING BY TELEPHONE.

Growth of the New System Which Doubles the Speed of Message Transmission and Gives Fewer Opportunities for Operators to Make Mistakes.

ONE of the most important innovations which has taken place in the history of railroading is that being put into effect now by many of the railroads throughout the country, namely, a new method of despatching trains, says K. W. Endres in the *Railway and Engineering Review*. The telephone is gradually replacing the telegraph for this service on many of the big railroad systems in the United States, and with the change, departs one of the most conspicuous features that has accompanied railroading since its early beginnings.

The aim throughout in train-despatching is to eliminate mistakes, and the result of the effort which has been extended along this line is in the development of experienced men and first-class machinery to handle numbers of trains in all kinds of complicated and intricate maneuvers without accident and without delay.

Time is a great essential in handling train movements. With the telegraph a despatcher has always been limited to the speed at which the ordinary operator can receive messages and work the key; and this speed, even with the most expert men, would not average more than fifty words per minute.

With the telephone it is easily possible to speak one hundred words per minute, and the gain in time is obvious. Furthermore,

the operator at the way station writes it down as he receives it. The telephone, therefore, eliminates one chance for mistakes which has been existent with the telegraphic method, in that the despatcher sent his message and then wrote it out as it was repeated back to him by the way stations. Now the despatcher can call in as many station operators as he wishes, can give them the train orders, and have each man repeat the order back to him, word by word, spelling out the stations and figures and underlining each word as it comes in.

The actual results in the two years the telephone has been in use in this country for this purpose have shown that not a single accident has occurred due to the telephone method of despatching.

Another great advantage which the railroads did not appreciate until after they had their new system in operation, was the gain that resulted in discipline and cooperation between the men.

It is a curious phase of human nature, but it seems to be a fact, that when a way station operator can call up the despatcher and say, "Bill, No. 32 just passed," he feels much better acquainted with that despatcher than if he said the same thing by means of a series of dots and dashes. One despatcher said that he had never been "mad" since the telephone system had been put into operation.

The system about to be installed on the Georgia Railroad will equip the division between Augusta and Atlanta, Georgia, a distance of 171 miles; and from Camak, Georgia, to Macon, a distance of 74 miles.

Other railroads in the South which have been active in adopting the telephone method of handling train movements are the Southern Railway, the Chesapeake and Ohio, the Norfolk and Western, the Seaboard Air Line, the Atlantic Coast Line, and the Carolina and Ohio Railway.

The system employed by all these railroads is practically uniform throughout. It is what is known as the Western Electric-Gill system and employs the Gill selector with Western Electric telephone apparatus.

THIRD OLDEST PENNSY EMPLOYE DEAD.

ANDREW NEBINGER, the third oldest pensioner on the Pennsylvania lines east of Pittsburgh and Erie, died on April 29, at his home in Harrisburg, Pennsylvania, after an illness of fifteen weeks.

Mr. Nebinger was ninety-one years old on March 17. He was a native of York County and came from a long-lived family, his mother having been eighty-seven at her death, and his father seventy-nine.

His name has been unique on the pension rolls of the Pennsylvania Railroad Company, says *The Patriot,* of Harrisburg, in an interesting account of the veteran's life, because of the fact that he was one of the three men whose ages are more than ninety years, and was one of the first benefited when the company established its pension fund in 1900.

He also had the distinction of having voted for William Henry Harrison, on the Whig ticket, and of having eaten dinner at Harper's Ferry with Henry Clay.

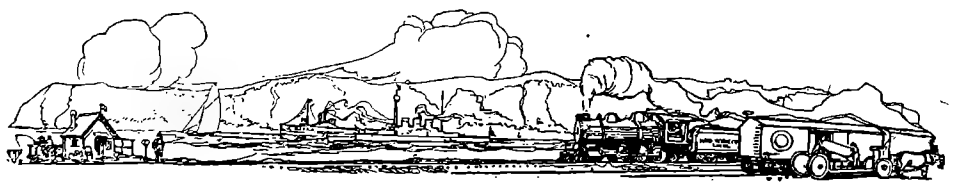
Mr. Nebinger came to this city with his family from Lewisburg, his birthplace, in 1860, and for over fifty years resided in his present home on North Sixth Street. His wife died eighteen years ago.

At the outbreak of the Civil War he was employed by the Pennsylvania Railroad as a carpenter. He entered the government service and took an important part in McClellan's campaign. At the close of the war he again entered the railroad service and continued until retired. He was employed as a master carpenter, having built a number of the bridges between Harrisburg and Philadelphia.

The other two employees over ninety years of age are Andrew Abels, of Philadelphia, who was born May 23, 1817, and retired January 1, 1900, and David B. Price, of Sunbury division, born November 8, 1818, and retired at the same time.

The death of Mr. Nebinger takes away the second of the Pennsylvania's oldest men within a year, the first being James Cullen, of Spruce Creek, who died last summer.

He is survived by one daughter, Mrs. Henrietta Lucas; four grandsons, one granddaughter, Miss Henrietta L. Bishop, and two brothers, Lewis M. and Edwin Nebinger.



WITHOUT LIGHTS.

BY J. AUBREY TYSON.

Two Travelers that Were Forced to Become a Law Unto Themselves.

SYNOPSIS OF PREVIOUS CHAPTERS.

FRED ERSKINE visits the general manager of the Chicago, St. Louis and Western Railroad, Andrew Warrington, with a letter from his father, who was an engineer on the engine Warrington fired. It is understood that when Fred has graduated, Warrington will place him. He now finds that he is unable to do so. Bonds of the value of half a million dollars have been stolen, and suspicion points toward Warrington's son. Warrington, senior, is suspicious of the motives of Montresor, who has gained the friendship of Joe Warrington, and apparently of Louise, Warrington's daughter. The old man gives the task of solving the disappearance of the bonds to Erskine. He is to work absolutely in the dark, receiving no recognition from Warrington, using any means he wishes. He is to take Louise to the opera that night, but Louise, suspecting him, has the coachman drive to Lincoln Park, and there Fred is assaulted by a man whom he believes to be Montresor. Erskine is walking on the lake shore, when he meets Barney McGrane, the discharged coachman of the Warringtons, who is very loyal to Miss Warrington. Erskine succeeds in convincing him that he is Miss Warrington's friend, and the coachman agrees to work with him. Others arrive, and Erskine gathers that it is their intention to kill Warrington. He meets the young fellow, who agrees to confide in him, but as Erskine leads the way from the shore Joe Warrington is mortally stabbed. During his last moments he discloses to Erskine that the bonds are being expressed by Montresor to Tacoma, in a typewriter machine-box. Erskine and Barney decide to leave the city and follow up the box containing the bonds. They arrive at Wapita Falls. Barney sees Louise and her mother alighting from the train, and imparts this intelligence to Erskine, who, meanwhile, has discovered the box labeled for Tacoma. Securing tickets for the train on which this box has been shipped, he finds the two women on board, and visits them in their stateroom, where he tells them of Joe's death. The two women leave the train near the Washington State line and Erskine fears that they have stopped to telegraph to Warrington, accusing himself and Barney of bringing about the young man's death. Determined to recover the bonds at all costs, he decides to hold up the train behind which he knows carries Montresor and the express box which he is after. He and Barney slip from their Pullman as the train nears Two Rivers, and securing a hand-car, set out for the tunnel-mouth they have selected for the hold-up. On the way the hand-car runs away and upsets while they are trying to prevent its crashing into a freight-train ahead, but both escape with a few bruises.

CHAPTER XVI.

A Fateful Encounter.

WHEN McGrane arrived at the spot at which the Altoona man was awaiting him, Erskine bade him put down the suit-case he carried, then slipped a revolver and cartridge-belt into his hands.

Speaking deliberately, Erskine said: "As I have told you, this revolver contains nothing but blank cartridges. Fire these whenever you think it necessary to intimidate persons who may be disposed to offer resistance. The belt is filled with ball cartridges, which are not to be used, however, until we get away from the train. Is this clear to you now?"

"Yes, sir," replied the Irishman dubiously. Then, after a pause, he added: "But if I see Montresor—"

"If you see Montresor, be especially careful that he does not recognize you,

and, above all things, do not forget that your revolver must hold nothing more than blanks. All I will take from the train is stolen property, which I intend to return to its rightful owner. We must score a bloodless victory."

"And when the train stops where am I goin' to begin?" asked McGrane.

"You will get to the cab of the locomotive and cover the engineer and fireman. Neither of these must touch a hand to a lever until I enter the cab and give them the word to do so. When I appear you will leave the rest to me. Neither of these men must be injured, for I will have use for them when I get from the express-car the box I pointed out to you at Wapiti Falls. Now, put on this mask, and tie it firmly."

"In a moment both men were masked. From his suit-case Erskine now took a couple of signal torpedoes. One of these he placed on one of the rails; then, bidding McGrane follow him, he picked up his suit-case and ran on about a hundred yards. There he laid the second torpedo on a rail.

With McGrane at his heels, the Altoona man quickly continued on his way up the grade. Once he halted, and, striking a match, he glanced at his watch. He saw that the Cascade flier was now due at Two Rivers.

The two men jogged on until finally they came to the top of the grade. There Erskine stopped and listened. All was still. Between the two rails the Altoona man now placed one of the two little tin cylinders he had taken from his suit-case a few minutes before. The second cylinder he left in his pocket.

"Now, Barney, keep a grip on your suit-case until you are beside the cab of the locomotive," Erskine said. "When you climb up on the engine, drop the case on the ground beside it and cover the two men with your gun. Go a hundred paces along the track and wait for the train. I will join you as soon as I fire this flare."

McGrane had scarcely left Erskine's side when, from the east, there came the long, quivering shriek of a locomotive.

Erskine's heart seemed to leap to his mouth; but, quickly mastering himself, he drew out a match-box and dropped on one knee beside the little cylinder.

Two minutes passed, then Erskine heard the whistle again. He inferred that the train, having passed Two Rivers without slackening speed, was now at the top of the grade down which the hand-car had rushed. From his match-box he extracted several matches, and, leaning forward, peered back along the line.

Then, faintly at first, but growing brighter each moment, he saw the glow of the headlight of the approaching train! And now the desperate man felt as if some remorseless hand suddenly had sundered the last tie that bound him to the cleanly things of life.

There seemed to come to him the knowledge that all the ambitious plans of his youth had gone for naught. Bereft of honor and self-respect, he tremblingly awaited the brand of criminality.

Into the honest, rugged features of his loving father he could look no more. Failure would mean a long period of confinement behind prison-bars. Success —how little his reward would be, after all!

He was wavering now. With a wild, exultant thrill he suddenly realized that it was not yet too late to draw back from the desperate act he had meditated. Then he seemed to see again the wan, despairing face of Andrew Warrington, and he remembered all that Andrew Warrington had done for him.

In his ears echoed the words of the general manager's dying son: "My honor, and my father's." And he wondered how—if he failed in his quest—Andrew Warrington would explain to Louise his reasons for causing her to become acquainted with Frederick Erskine.

For several minutes the headlight of the onrushing locomotive had disappeared from his view, but the rumble of the approaching train was growing louder in his ears. Then, like the crack of a mighty whip, goading him on to action, came the detonation of the first of the torpedoes.

He struck a match, and held it over the top of the little tin cylinder between the rails. Before the match went out a little ruby glow began to spread beneath it.

Brighter and brighter grew the reddish light. Erskine rose and tottered

from it, and, as he ran, the detonation of the second torpedo sounded in his ears.

It suddenly occurred to Erskine now that he had a race to run, and, gripping his suit-case, he plunged on madly. From behind him came the whistling of air-brakes, and a dull, grinding sound that assured him that the train was slowing down. The glow of the flare he had lighted was so bright that he dared not look over his shoulder lest the engineer of the locomotive should see his masked face, and prepare to offer effectual resistance or decide to put on speed again.

At length he became aware of the fact that a dark figure, a score of paces farther on, was crouching beside the track, and he knew it was McGrane. Then the red light vanished suddenly, a whistle sounded sharply, and a broad stream of yellow light shot ahead of him along the track.

The locomotive of the Cascade flier was close behind him. Turning abruptly, the Altoona man leaped from the track, and a moment later the great, hissing locomotive slowed down beside him.

Erskine looked for McGrane. The Irishman already was in action, and was only four or five paces away.

"All right, sir!" McGrane called reassuringly; then, reaching up to the hand-rail of the locomotive, he swung himself up to the cab.

For only a moment did Erskine hesitate; then, as he heard the Irishman shout "Hands up!" to the occupants of the cab, he dashed down to the express-car.

The incidents that followed happened quickly, and ever afterward they seemed to Erskine like those of a nightmare. How he entered the express-car he did not know. He remembered seeing around him two or three blanched faces as he looked at them over his revolver. He had asked the occupants of the car if they had a typewriter aboard. This he had assured them was all that he wanted, and as he spoke he knew by the expressions on the faces of the men he addressed that they believed him to be mad.

Satisfied that he was a dangerous lunatic, however, they quickly decided to humor him. One of them pointed to a box in one of the corners of the car. On the box were the words, "Anxell Typewriter," and the address he had read in the baggage-room at Wapiti Falls.

He directed the men to take it to the side door of the car, and they obeyed him. With a thrust of his foot he sent it out into the night.

"When I go close the door, and do not open it again until you are out of gunshot," he commanded.

As he finished speaking he left the car, and the door was closed behind him. Moving quickly, Erskine grasped the rope handles of the box and hurried with it to the front of the train. There he threw it on the platform at the doorless end of the baggage-car. This done, he tossed up his suit-case, and McGrane's beside it, after which he hurried to the locomotive and mounted to the cab.

Just as he was about to enter the cab a dark figure moved toward him, and Erskine suddenly realized that he was looking into the muzzle of a revolver.

"McGrane!" exclaimed the Altoona man in a warning voice.

With an oath, the dark figure leaned toward him. From the muzzle of the revolver leaped a flash of flame that almost blinded him, and the report of the revolver pistol's discharge rang in his ears. As he grappled with the man who had fired at him, Erskine saw that he was slighter than McGrane.

Erskine's left hand had closed around the right wrist of his adversary, and his right hand gripped the stranger's throat. It required only a second or two to convince Erskine that he was the stronger of the two, and, satisfied of this, he relaxed his hold on the throat of his assailant.

With a quick movement of his right hand, he grasped the still smoking revolver, then swung it against the other's head. With a low groan, the stranger, clutching Erskine's mask, collapsed and sank to the floor of the cab.

Realizing that the revolver which he had just taken was the one, filled with blank cartridges, which he had given to McGrane, Erskine now drew from his belt the weapon that he had carried at the time he entered the express-car. This was loaded with ball cartridges, and, dominated by a spirit of desperation, he was resolved to shoot any one who now attacked him.

Already his game seemed half lost, for, unmasked as he was, he was in imminent danger of being seen by some one who would be able to describe his features to those who, within a few hours, would essay the task of running him down.

By the light of the lantern that hung above the gages, Erskine now saw the finish of a struggle that had been waged on the fireman's side of the cab. Felled by a powerful uppercut on the chin, McGrane lay gasping in a corner, while the brawny, square-shouldered man who had put him there turned sharply to confront the new intruder.

Erskine was thinking quickly and acting surely now. Resolved that no aid should come to the engineer and fireman from the cars behind him, he stepped across the body of the man he had knocked down and opened the throttle.

A thrill of exultation passed through him as the great locomotive began to move. A moment later his revolver was leveled at the head of the black-capped man, in the blue jumper and overalls, who had mastered McGrane.

"Hands up, or I'll let you have it!" Erskine said, in a low, deliberate voice.

"Well, blaze away, you—" began the other, leaping forward.

But he stopped—stopped with a hand extended toward the weapon, on the trigger of which Erskine's finger was trembling — stopped before it was too late. Moved by a common impulse, each of the staring men drew back, and the hand that grasped the revolver slowly fell to Erskine's side. Over the features of both spread a look of horror, and their eyes grew glazed and wide.

The blue-clad man was the first to break the silence that fell upon them.

"Fred—Fred—oh, Heaven—my son!" he stammered.

And the other murmured feebly: "Father!"

CHAPTER XVII.

The Hand on the Throttle.

AS motionless as if carved of stone, father and son continued to gaze upon each other with expressions of horror that seemed to deepen as the moments passed. From a corner of the cab came a half-stifled groan from the lips of the still unconscious McGrane. On the elder Erskine this appeared to have no effect. To the younger man, however, it came as a call to action, and again he reached for the throttle lever.

"Stop!" old Sam Erskine commanded hoarsely.

The son opened the throttle wider. The father laid a hand on his arm.

"Boy—boy—are you mad?" he muttered.

Fred shook his head. "No," he answered gloomily.

The old man pointed to the corner in which McGrane was lying.

"Is that fellow—the fellow with the mask—a friend of yours, Fred?" he asked in shaking accents.

The young man nodded. The fingers of the engineer sank deeply into the arm they grasped. The locomotive was rapidly gathering headway now. The rumble of its wheels was growing louder, and the two men swayed as it took a curve. Old Sam's eyes wandered to the body of his fireman, who lay with his feet in the cab and his head and outstretched hands on the floor of the tender. The eyes of the old engineer grew narrower.

"And it was my own flesh and blood that struck down Ned Latlock!" he muttered. Then his face grew whiter and more tense as he added: "Is that your black mask that's a lyin' there beside him?"

The younger man's only answer was a nod. The old engineer drew back, and his trembling hand fell from the arm which it had been gripping.

"Fred—Fred—boy—we've been dreamin', ain't we?" Sam Erskine asked in pleading accents. "There's somethin' snapped in this old fool head of mine, and things is runnin' queer. It ain't true, is it, Fred, that you—that I—"

Fred was on the engineer's bench now, and was peering through the window. His left hand grasped the throttle-lever. A great numbness had settled on his faculties, and he moved mechanically.

The old engineer, breathing heavily and with his features twitching spasmodically, waited for an answer. He waited in vain. From the compressed lips of his son there came no sound. Walking

unsteadily to the young man who now occupied his seat, Sam laid a hand on his shoulder.

"It ain't no dream, son, I guess," he said huskily. "Now, what have you got to say? Yes, you've got to speak. When I'm on duty I ain't got no mind or heart for anything in all the world but my engine, track, and signals.

"When I'm out of my cab my mind, heart, hopes, and pride are all for you. I'm on duty now, and I'm goin' to run this engine; but first I'm goin' to find out why two masked men held her up and laid out Ned Tatlock. And so, by Heaven, you'll speak, or you and me will start right now for Hades together!"

With blazing eyes and clenched fists, the old engineer drew back threateningly. Fred's face was livid as, turning, he looked over his shoulder at his father; but he met the elder man's gaze unflinchingly.

"Speak!" the engineer repeated. "Why did you hold up this train tonight?"

In the ears of the young man were ringing the words the general manager had spoken scarcely more than two days before.

"Your relations with me must not be known to any person other than ourselves."

And, like his father's, Fred Erskine's duty was clear. Andrew Warrington's confidence must be respected, and his orders obeyed to the letter.

"Speak, boy — speak!" commanded Erskine, in a strident voice. "I ask you, for the last time: Why did you hold up this train?"

With the gaze of his bloodshot eyes still on the face of his father, Fred Erskine answered grimly:

"Because the Dale express-car, just behind you, was carrying stolen property—property which I have been sent out here to recover."

"Was it stolen by the Dale Express Company?" the old man demanded sharply.

"No, but the Dale express was acting as carrier for the thief."

"Then, by Heaven, it is with the thief you have to reckon—but you've got to reckon first with me. While the Dale car is runnin' as a part of the Cascade Flier, the Chicago, St. Louis and Western is responsible for its safe delivery at Tacoma.

"If you've took anything out of the Dale car, it goes back at the next stop we make, or into the hands of the sheriff you go when we pull into Weatherbee. This is my first run as its engineer —and, by Heaven, she's goin' through on time. That bench is mine, and you'll get down from it. Get down, I say!"

Pale and haggard, Fred Erskine rose as his father took a determined step in his direction. Suddenly the old man hesitated, and darted a swift glance at the closed door of the fire-box. Suddenly he was kneeling beside the prostrate form of his fireman. His eyes gleamed wildly as he stood upright again.

"Well, since you've done for him, you've got to do his work," growled the engineer. "Draw him in and lay him alongside that four-flushing gun-fighter of yours, then get hold of a shovel and heave in the coal. Come—step lively! There ain't nothin' more to say until we get to Weatherbee."

Fred stepped down, and a moment later his father, with a hand on the throttle, was peering out into the darkness. Without pausing to cast off his coat, Fred drew the inanimate fireman to one side of the cab, and then flung open the door of the fire-box.

Once in the course of the next five minutes old Sam Erskine looked over his shoulder. His features were white and grim, but the expression of anxiety in his eyes gradually gave place to one of transient satisfaction as he observed with what vigor his brawny son was addressing himself to his task.

Wider and wider the engineer opened the throttle, and faster and faster plunged onward, the great swaying steel monster beneath him. The Altoona man —coatless and hatless now, and with streams of perspiration streaking the grime that was settling on his face— kept watchful eyes on the gages, and never permitted his energy to flag.

Once, while the interior of the cab was aglow with the fierce light that issued from the open door of the fire-box, Fred saw that McGrane had recovered consciousness and, leaning on one of his elbows, was gazing at him with wonder-

ing eyes. Nodding glumly, the young man went on with his work.

Fred Erskine had been thus engaged for about ten minutes when a low exclamation from Tatlock, the fireman, caused him to look in his direction. Rising with difficulty, Tatlock leaned forward and looked malignantly at the man who was in the act of throwing another shovelful of coal into the fire-box.

"What the deuce are you doing now?" the fireman demanded, in a surly tone.

"It's all right, Ned," said the engineer, in a hollow voice. "Just you keep still and pull yourself together until we get to Weatherbee. This boy knows what he is doin' and he's takin' his orders from me. There ain't goin' to be no more trouble, Ned—for you."

There was a pause, then Tatlock asked: "Are you all right, Sam?"

"Yes, son—all right," replied the engineer, but there was a gulping sound in his throat as he said it.

Fred's voice was the next to break the silence.

"What time do we get to Tyrcone?" he asked.

"An hour and ten minutes" answered the engineer, shortly.

"That is where you pass the Coast Express, is it not?" the Altoona man went on.

"Yes."

"Are you scheduled to stop there?"

"No. Our first stop is at Weatherbee."

Fred looked speculatively in the direction of McGrane. The Irishman was watching him closely, and, fully recovered from the effects of the blow which had rendered him unconscious, seemed now to be expecting some sort of a signal from the man under whose direction he had been working.

Fred Erskine glanced again at the gages, then, leaning on his shovel, he turned to the engineer.

"We'll have to slow down at Tyrcone," he said, doggedly.

As the old engineer turned slowly in his seat, his pale face was working convulsively.

"Not this trip, son," he answered in a shaking voice that was scarcely audible above the clatter and roar of the speeding locomotive.

Trailing the shovel behind him, the young man stepped to where his father was sitting and laid a hand on one of his shoulders.

"My friend and I must leave this train at Tyrcone," he said.

"We make no stop this side of Weatherbee," reiterated the engineer, turning again to his window.

"Come, father—" began the son, in a tone of conciliation.

"We stop at Weatherbee," shouted the engineer, determinedly, above the roar of the engine.

"Well, listen to me," Fred commanded in a tone that caused his father to turn his head again. "The law, more humane than you, presumes a man to be innocent until his guilt is proved. This presumption is all I ask of you. You demand a proof of my innocence at a time when those who are able to speak in my favor, and who have closed my own lips, are too far away to aid me in the situation that confronts me now."

"The situation that confronts you now is two black masks, two revolvers, a held-up train, a laid-out fireman and ten minutes lost from the schedule of the Cascade Limited," thundered the engineer. "And there's more. You've said you've took somethin' out of the Dale express-car that the Dale was responsible for the delivery of.

"I say 'back it goes, or into the hands of the Weatherbee sheriff go you and the gun-fighter what wore mask Number Two.' Well, that's all, I guess—except that we go by Tyrcone aflyin', and that the first stop of this here train is Weatherbee—'cordin' to train orders."

"Then, by Heaven, you'll be playing into the hands of—"

"I'll be playin' into the hands of the Chicago, St. Louis and Western Railroad, lad, and that's why I'm right here at this throttle."

For several minutes Fred's secret trembled on his livid lips, but duty scored a partial triumph.

"No," he answered, breathlessly. "All unconsciously, you are in league with a criminal—a thief and a murderer—and you are betraying the interests of the very company you are trying to serve. From the car behind us I took only a box. The person to whom it was con-

signed will never dare complain of its loss, for he is none other than the person who stole it from its rightful owner. It is to that rightful owner that I purpose restoring it."

The light of hope and restored confidence flickered over the old man's face, but in a few moments it was gone again.

"Justice don't wear no black masks, nor hold up trains to get what's comin' to it, son," the engineer retorted. "Justice stands up, fair and square, and gets its own in the bright light of day. And so—and so—well, son, you see there ain't no use in talkin'. This here train don't slow down until she gets to Weatherbee."

"You think then, that—" the son began.

The old man shook his head.

"It ain't for me to do no thinkin'," he answered, moodily. "An engineer on duty has got to be all eyes. Thoughts, son, ain't his line of business. Whatever deep thinkin' is to be done is done by them what runs this road from offices. Until them thoughts gets worked into train orders, they're no business of an engineer's.

"I got eyes for train orders, cab-gages, track-signals and them there slots in the quadrant, and that about lets me out when I'm on a run—unless black masks and guns get in my way—and so, unless I see a signal put against me, this old girl of mine keeps right on until she gets to Weatherbee."

It was not fear that set Fred Erskine trembling as he drew back, nor was it enforced resignation that chilled his mind and heart. He had been addressing a man he never had known before—a man who had the face and figure of his father, but, withal, a heart of steel and the cold, remorseless voice of an executioner. And yet he knew that under any circumstances other than these the old man at the throttle would lay down his life for him.

"You won't trust me, then?" the young man cried, reproachfully.

Through the forward windows swept a cloud of smoke and stinging dust which had been belched from the smoke-stack of the wildly rushing engine, and the deafening roar that followed plainly indicated that the locomotive had plunged into the darkness of the Dumbell tunnel.

Further conversation was impossible now, and again Fred Erskine, throwing open the fire-box door, resumed the work of throwing in coal. On the left of the cab, McGrane and the fireman, each ignorant of the purpose of his chief, sat in gloomy silence.

From time to time the engineer glanced at his clock and gages, but, for the most part his gaze was directed along the track ahead of him. At length, the loud roar ceased suddenly, and once more a rush of fresh air swept from the cab the choking smoke and dust that had filled it. The tunnel was behind them.

Raising his arm, Fred Erskine passed his sleeve over his forehead and freed it from the perspiration which was streaming into his eyes. He judged that the locomotive was rushing onward at the rate of sixty miles an hour. If this rate was maintained, the train would be at Tyrcone in fifty minutes.

For the next half hour the four occupants of the cab were silent. Fred worked indefatigably; but, as he worked, he kept watchful eyes on the clock. At length he motioned to McGrane to come to where he was standing.

As the Irishman rose, Tatlock leaped to his feet and looked at him threateningly. McGrane hesitated and as he returned the fireman's gaze, his eyes gleamed balefully.

"Look sharp, Sam!" cried the fireman to the engineer.

Sam Erskine turned quickly. His son addressed McGrane.

"There's a water-tap and basin in the tender," he said, sharply. "Get rid of some of that grime and blood, and wait by the tap for me."

"Is it all right, Sam?"

The engineer nodded and again looked through his window. McGrane shuffled out to the tender. Tatlock reluctantly settled himself in the fireman's seat, while Fred Erskine, leaning on his shovel, looked gloomily at the closed door of the fire-box.

Five minutes passed, then Fred moved slowly to where his father was sitting and laid a hand on his shoulder. The old engineer turned sharply. He saw that the left hand of his son still rested on the handle of the shovel and that his right was grasping a revolver.

"We slow down four hundred yards this side of the Tyrcone station, or—" the Altoona man began, but the expression that he saw on the face of his father stopped him. It was such an expression as hunters have seen on the faces of mortally wounded animals which, knowing that death is inevitable, turn their dazed, wondering eyes upon the agents of their destruction.

"Or you go on alone," the young man finished.

The eyes of the old engineer grew wider. "You—you mean that you—that you—" he faltered.

"I mean that if this train takes me past Tyrcone to-night, it will take me past as a corpse," the young man answered calmly.

For a minute longer each looked into the other's eyes. Then old Sam Erskine slowly turned from the son who had been his pride.

Slipping the revolver into a pocket of his trousers, the Altoona man drew back. Again the fireman had risen and was watching him warily.

"Here, Tatlock, is your shovel," Fred said, quietly. "I think you are able to use it now."

As the fireman took the shovel from his hand, Fred Erskine turned and, picking up the coat, collar and neck-tie he had removed shortly after he had assumed the duties of a fireman, he retreated to the tender. There he found McGrane wiping his face and hands on a handkerchief.

Without speaking to his companion, Fred filled the basin with clean water and then proceeded to remove the grime that had settled on his skin. When this was done, he put on his collar and neck-tie and then donned his coat.

"Now let's get back to the tender," he said in a low voice to the Irishman.

As he led the way up the sloping mound of coal toward the rear of the tender, the young man paused and looked over his shoulder.

At this moment Tatlock threw open the door of the fire-box, and the white glare that issued from the fiery furnace revealed to Fred Erskine's eyes the sturdy figure of his father at his post. The old engineer's chin was on his breast, and, as he stared out into the night, one of his trembling hands lay idly on the lever which was the lever of his son's fate—and his.

CHAPTER XVIII.

Caught in a Corner.

THE descent from the top of the big tender to the platform at the end of the baggage-car constituted an undertaking from which even the stout heart of McGrane shrank aghast. Erskine accomplished it successfully, however, and the Irishman followed him.

The car on which the two men now found themselves was a blind baggage. Here, on the platform, the Altoona man found the box and suit-cases he had placed there at the time he held up the train.

From one of the suit-cases, Erskine now produced a screw-driver and hammer with which he had provided himself before he left Chicago, and in a couple of minutes he had succeeded in removing the cover from the box.

With a rapidly beating heart, the young man began to examine the contents of the box which he had made such arduous efforts to obtain. Immediately beneath the cover he came upon a bunch of old newspapers. Casting these aside, he found beneath them five packages of bonds, of unequal sizes. These he quickly transferred to the suit-cases, after which he flung the typewriter-box from the train.

Glancing now at his watch, Erskine saw that the train was due at Tyrcone in five minutes. Once or twice McGrane had spoken to him, but the Altoona man scarcely seemed to hear his words, and they were unanswered.

The train was speeding on at the rate of about fifty-five miles an hour. Far darker than the night were the young man's thoughts as he sat on the car platform with his grim face turned to the dark mountains which the hurrying train was passing. Threatened with prosecution on the charge of having been connected with the death of Joseph Warrington, and branded as a criminal by his father who seemed resolved to sacrifice his only son to a stern, but misguided, sense of duty, Frederick Erskine felt as

if every door of hope was closed against him. The world seemed to have contracted until it was no larger than a prison-yard, and he felt that no matter where he might turn, he would be unable to escape the vigilance of scores of unseen eyes that were watching his every movement.

The unfortunate man knew, too, that if his father proved to be so unrelenting as to carry him on to Weatherbee, all hope of escape would be vain. Even if his father kept silent on the subject of the hold-up, the men in the express-car would speak; and Tatlock, the fireman, would give a careful description of the two men he had seen unmasked.

All this Fred had realized when, approaching his father, he had threatened to commit suicide if he should be carried beyond Tyrcone, where the West Coast Express, which he had left at Two Rivers, now was awaiting the passage of the Cascade Limited. Within his grasp he held the bonds which represented the honor of the Warrington family, and yet the restoration of those bonds to their proper place was to be prevented by his own father's unrelenting sense of duty.

And now the young man began to reproach himself for his failure to take his father into his confidence. He was satisfied that if Andrew Warrington had foreseen the situation that confronted his agent, he would have been willing that Samuel Erskine should be given as much information as might be necessary to enable him to act with more intelligence.

But it was too late now to effect this compromise with the letter of his instructions. While he had found it possible to descend from the back of the big tender to the platform of the baggage-car, he was manifestly unable to return by the way he had come.

He was resolved that if he passed Tyrcone, he would carry out the threat he had made to his father. Gradually it dawned on Erskine's mind that the locomotive was slackening speed. The young man stiffened suddenly, and he slipped back into his trousers-pocket the revolver he had half-drawn out. The spirit of hopelessness that had dominated him only a moment before now gave place to mingled exultation and self-reproach.

Sam Erskine, the father, had triumphed over Sam Erskine, the duty-bound engineer, and the son had been given the benefit of the doubt. Gripping the handles of both suit-cases, the Altoona man turned to McGrane.

"When the train slows down, we've got to get away from it as quickly as we can, Barney," he said in quick, nervous accents. "On a siding, somewhere about the station, is the West Coast Express, which we left at Two Rivers. We must board it again.

"There is only one chance in ten that we can get to our berths without being seen, but we must take it. Keep close to me, and let me do all the talking."

"We've got to make another jump from the train while it's movin'?" asked the Irishman dubiously.

"Yes, and pray Heaven that it may be the last," Erskine answered solemnly.

"There ain't no use in prayin', sir," growled McGrane; "for after we jumped at Two Rivers, I prayed that never again might we take another header such as that. And that there prayer was scarcely dry on my lips when we went a kitin' and a sommersettin' from the hand-car."

"You'd better take one of these suit-cases," said Erskine half reluctantly. "Keep a tight grip on it, and don't let go when you strike the ground. This time I am going to let you jump first. When you find your feet, come after me as soon as you can. There will be no time for me to go back to look for you."

"All right, sir," the Irishman assented; then, after a pause, he added: "You've changed your mind, I guess, about Miss Warrington chargin' us with murder and havin' the train searched for us."

"We'll have to take our chances, Barney. Since the train was not searched at Two Rivers, there seems to be ground for the hope that it may not be searched here."

Rising from the platform on which he had been crouching, Erskine descended the steps on the right, and, grasping the hand-rail, leaned outward. Each moment found the train proceeding more slowly, and, as Fred looked forward along the line, he saw at last the lights of the station which the train was approaching.

"All ready, Barney," he said quietly, and as he spoke he moved back to give place to his companion. The Irishman stepped down.

"Don't jump until I give the word," directed Erskine.

Slower and slower moved the train, but it was not until it was within a couple of hundred yards of the station that Erskine bade his companion take the leap.

This time the Irishman had no difficulty in keeping his feet as they struck the ground. Erskine followed promptly, and in a moment McGrane caught up with him.

Fred quickly led the way from the track to the shadow of a warehouse, and, screened by this, he continued on in the direction taken by the train. The two men had advanced only a few paces, however, when Erskine saw something that brought his heart to his throat.

The Cascade Limited was stopping at the station! Knowing that this train was not scheduled to stop at Tyrcone, there was only one inference to be drawn from the fact that it had stopped there tonight. The hold-up of the train was to be reported to the proper authorities.

As a result of the brief stop at the scene of the hold-up, due to Erskine's prompt action in getting the train into motion, no opportunity had been afforded the men in the express-car to get into communication with the conductor or the engine-crew. Had the train continued on its way, such communication could not have been had until Weatherbee was reached.

This would have given Erskine ample time to carry out the plan he had formulated. And so to the unfortunate young man it seemed clear that a sense of duty had triumphed over his father's affections, after all.

Only for a moment did Frederick Erskine hesitate, however; then, turning to McGrane, he urged him to greater haste.

The Cascade flier had stopped between the waiting West Coast Express and the station platform, and it was the space between the two trains that Erskine now was heading toward. The car from which he and his companion had leaped at Two Rivers was the second from the rear of the train.

Scarcely more than a minute sufficed to enable the two men to get between the trains. As Erskine had expected, the doors of the vestibuled platforms were open, and he and McGrane quickly mounted the steps of the car which they had left at Two Rivers. Erskine, who led the way, had advanced only a little distance into the car, however, when he drew back suddenly.

Between the two long rows of green curtains which screened the sleeping occupants of the berths from the aisle of the car, he saw the white-clad figure of the negro porter. Had he and McGrane not been carrying suit-cases, he would not have hesitated for a moment. When he and his companion had left the train at Two Rivers, it had been impossible, of course, for him to close behind him the door through which they had leaped from the vestibuled platform.

It was scarcely probable that this open door had escaped the notice of some member of the train-crew before Tyrcone was reached; but it was most likely that the person who had found it open had ascribed the fact to some act of carelessness on the part of one of the trainmen. The return of two men with suit-cases, taken in connection with the report of the hold-up of the Cascade flier, which even now must be spreading in and around the station, most naturally would be regarded with suspicion.

Having retreated beyond the porter's view, Erskine was trying to formulate some excuse for his presence with the suit-case in that part of the car when he suddenly realized that he was standing in front of the door of the stateroom in which he had interviewed Miss Warrington. Miss Warington had left the train at Bernardville, and had not returned to it.

It was most probable, therefore, that the stateroom which had been vacated by her and her mother was still unoccupied. Trying the door, he found that it was unlocked. In another moment he had pushed it open.

"Quick, Barney—here!" he directed.

As soon as his companion was in, Erskine closed the door. The interior of the stateroom was lighted, but, unlike the berths in the other part of the car, these had not been made up for the night.

Erskine, looking at McGrane, scowled slightly. As a result of washing on the locomotive tender, the Irishman was clean enough; but the sharp run he had taken to the car in which he now found himself had caused him to lose his breath, and he was panting slightly.

Glancing in a mirror, Erskine surveyed his own reflection critically. He, too, bore no marks of his recent adventure; but, unlike the Irishman, he showed no effect of his exertions. Thus far he had succeeded rather better than he had expected. It was essential, however, that he get to his section with the suit-cases with the least possible delay, and this must be done in a manner that would enable him to elude observation.

"Brace up, Barney, and get your wind," he said impatiently. "You look as if you had been running a marathon."

McGrane was about to reply when something struck the door, and immediately afterward the two men heard the sound of voices.

"Sit down," commanded Erskine in a low voice, and as he spoke he sank into one of the seats.

The two men were scarcely seated when the door opened and a negro porter, carrying two suit-cases, entered the stateroom. The newcomer halted abruptly, and looked at Erskine and McGrane with an expression of surprise. Fred saw that it was not the porter who belonged to the car.

"This ain't yo' room, is it, sah?" the negro asked.

"No," Erskine answered promptly. "The two ladies who occupied it got out at Bernardville, and as my friend and I were not quite in shape for sleep, we stepped in here. Has it been engaged?"

"Yes, sah," said the porter. "The ladies is back again."

Erskine started. "The ladies who—" he began, but the rest of the sentence died on his lips.

From behind the negro came the low, cold voice of a woman:

"These men are known to me, porter. You may put down the suit-cases and go."

The porter placed the suit-cases on the floor, and smilingly pocketed the coin that was held out to him, then he left the room. Louise Warrington and her mother entered. Louise closed the door.

(To be continued.)

RAILROADS TO TAKE UP FARMING.

New York Central's Demonstration Farms to Encourage Crop Raising. —Burlington for Good Wagon Roads.

THE New York Central has determined to run at least three demonstration farms along its road for the purpose of illustrating the best methods in crop production, fruit growing, etc. These farms will be under the control of experts supplied by the State College of Agriculture.

"There is nothing philanthropic in this work," says the president of the railway. "It is simply a matter of business. If the line can show how to increase the production of farms along its route by the means adopted it will thereby increase its own business and add to its own profits."

In the same way railways are becoming more interested in good roads as a business proposition. The Burlington Railroad has done much for good road building, and has issued a booklet on the subject, besides giving other practical encouragement.

Good roads help the railroads, help everybody. Every State is awakening to this fact, and an era of good road building has well started.—*Illinois Republican.*

One good rail isn't the whole railroad. Experience as an engineer doesn't mean you can run the railroad better than the president.—Admonitions of the Old Man.

The Flight of the Coyote Special.

BY C. E. VAN LOAN.

THE TRUE STORY SERIES. Whenever railroad men fall to discussing shotgun runs and long-distance record-breaking specials, the conversation is sure to veer around to the trip of the Coyote Special over the line of the Santa Fé between Los Angeles and Chicago, 2,265 miles in forty-four hours and fifty-four minutes. That was railroading. Where have they beaten it?

Yes, Scotty was the man who did it. Have your own opinion about him, but there is one thing which you cannot take away from Scotty, and that is the distinction of having bought and paid for the fastest ride over the Rockies and across the plains ever made possible by steam and steel. The Coyote's record still stands and it is likely to stand for some time.

How the Craving for Notoriety and Love of the Unusual, of a California Miner, Brought About the Fastest Long-Distance Run Ever Made in the History of Railroading.

TRUE STORY, NUMBER FORTY-SIX.

WALTER SCOTT has well been called the man of mystery, and a lot of people are still puzzling their brains about him.

Some say that he was hired by the Santa Fe to advertise the road; they say he was a train-robber; they say he was a counterfeiter, and wonderful tales have been told of his cache of thousand-dollar notes in a cave in Death Valley.

As a matter of fact, Scott, whom every one in the West calls "Scotty," was a young man who was clever enough to sell something which he never proved he had to a lot of Eastern millionaires. His appearance as a man of mystery was an accident.

One night a husky young man in the outfit of a cow-puncher walked up to a Los Angeles cigar clerk and asked for a fifty-cent cigar.

He tendered in payment a one-hundred-dollar note. The clerk said he could not change it.

EDITOR'S NOTE: All the stories published in this True Story Series have been carefully verified by application to officers or employees of the roads or companies concerned who are in a position to be acquainted with the facts. Contributors should give us the names of responsible persons to whom we may apply for such verification, in order that fruitless inquiries may be avoided. This condition does not imply any lack of confidence in the veracity of our contributors, but is imposed merely to give greater weight and authenticity to the stories.

Series began in the October, 1906, Railroad Man's Magazine. Single Copies, 10 cents.

"Well, change half of it!" said the stranger, whereupon he tore the bill in two, left half of it on the show-case, and walked away. But he remembered the number; for, whatever may have been the matter with him, Scott was not crazy.

A reporter happened along, saw the torn bill, and, not being able to find Scott and talk with him, went away and wrote him up as the man of mystery.

Scotty, believing everything he saw in the papers, at once made up his mind that there must be something mysterious about himself; and thereafter he did his best to live up to the part. There is your explanation of Walter Scott in a nutshell. As for his amazing supply of money, he got it in the most prosaic manner in the world—in the form of drafts upon New York banking institutions; and the men who sent him the drafts were convinced that he had a mine.

In the first place, Scotty liked notoriety; that is, he liked it before he got too much of it. In the second place, he had something to sell. It may have been a mine, and it may have been conversation about a mine; at any rate, it was for sale, and Eastern men bought it.

The Coyote Special grew out of two things—Scott's love for notoriety, and his desire to convince people that he had a good thing. As a matter of fact, he had two good things; but it would be unkind to print their names. They furnished the money, and it bought themselves an interest in a gold-mine.

They were buying an interest in themselves, but they did not know that until afterward. It is the general opinion out West that if a man is smart enough to sell a gold brick to an Eastern millionaire, he is entitled to the proceeds.

Now, about that train. After the incident of the torn one-hundred-dollar-bill—and that trick belonged to the justly celebrated Steve Brodie, who also went back after the pieces—Scotty began to appear next to live reading matter in the public prints. When he could not think of anything else to do, he hired a special train from Barstow to Los Angeles—a matter of one hundred and forty-one miles over the Cajon Pass, and through the garden-spot of southern California.

Scotty broke the record with a whoop and a hurrah, and he liked the sensation so well that inside of ten days he slipped quietly out to Barstow; and I received a telegram from there, saying that the man of mystery was in the office at that point, arranging for a second special train. I wired him that he was crazy; he wired back:

> Pay no attention! I'm coming in to arrange for a special train from Los Angeles to Chicago to lower the record made by the Peacock Special.

That was news. Scotty came rolling in from Barstow, stripped to the waist, and working on the engine with Finley, the crack driver of the division. With his usual blast of trumpets, he announced that he was going over to Chicago in forty-five hours.

HE TORE THE BILL IN TWO.

The Santa Fe was annoyed. The record of the Peacock Special, which had made the fastest time over the road, east bound, was fifty-seven hours and fifty-six minutes: and that was railroading to any man who knows what the Santa Fe grades are like in California, Arizona, New Mexico, and Colorado.

For a few days Scotty talked and the Santa Fe figured. Every little while Scotty would "spur the ole Santa Fay in the shoulder," as he called it; and Eastern newspapers began to wake up and send in queries asking when the train was to start.

On Saturday, July 8, 1905, Scotty walked into the office of John J. Byrne, general passenger-agent of the Santa Fe in Los Angeles, and laid down a roll of thousand-dollar bills.

"I've come to buy speed!" said he. "What'll you take to do forty-five hours?"

That was the beginning of a two-hour confab. Byrne had an idea what the road could do, for the wires had been humming for four days. Every division superintendent along the entire route had made a report; Byrne had the figures under his hand. It was his opinion that to attempt anything like a forty-five-hour schedule would be suicide.

"I think I am safe in saying that we will better fifty hours for you," said he. "That would lower the record by almost eight hours for the east-bound run."

No. Wouldn't do. Wouldn't do at all. Scotty wanted speed. As for that Peacock Special, he knew all about her; and Byrne's eyes opened wide when Scotty began to tell about the number of times she had been put in the hole for hand-cars, as Scotty expressed it.

"*I* know what this road can do if I get the engines I want," said the man of mystery. "And I want the right of way over every train on the road, with the switches spiked half an hour in front of me."

"See here," said Byrne, "how do you come to know so much about prairie types, balance compounds, and grades, and things?"

"I ought to know a little," said Scott. "I beat my way over your old road about thirty times. I know every foot of it."

In the end, Passenger-Agent Byrne agreed to arrange a forty-six-hour schedule for the two thousand two hundred and sixty-five miles, giving the special the right of way over everything on wheels, including the palatial limited, the pride of the road.

As soon as the money was paid over, Byrne sent out a flood of telegrams. "All right; get ready," they said. That happened late on Saturday afternoon. At noon the next day the Coyote backed into the yard, ready to start at one o'clock.

There were four passengers—Walter Scott, his wife, Frank Holman, a friend of mine who went along for the fun of the trip, and the writer.

When the minute-hand of the clock crept to the top of the dial, Conductor George Simpson gave Engineer John Finley the finger, old 442 coughed once, slid rapidly over the clattering switches, and the great run for the record was on.

From the first minute of the trip we began fighting that forty-six hour schedule. Finley had been allowed three hours and twenty minutes in which to make Barstow — one hundred and forty-one miles away, over the steep Cajon Pass—the record time for the run. At San Bernardino, sixty miles out, we were to pick up a second engine for the climb up grade, drop her by a flying-switch, and go on down the other side to the Mojave Desert.

All that it needed to get Finley's fighting-blood into action was a four-minute stop on account of a hot tank-box; after that he knocked out miles under forty-five seconds, and came booming into San Bernardino four minutes ahead of the schedule.

Leaving San Bernardino with an extra engine, the Coyote tackled the first of the five mountain ranges; and Conductor Simpson, who had been in charge of the Peacock Special and the Lowe Special, which established the west-bound record, kept his watch in his hand and one eye on the mile-posts.

The run to the summit was made in faster time than it had ever been made before; the second engine jumped ahead, took a flying-switch, and was in the clear as the short train came pounding by, topping the crest of the first range of hills.

The track twisting down to the desert was a dangerous place on which to attempt speed; but Finley knew every inch

"WE GIVE THE OLE GIRL FITS ON THAT GRADE!"

of it, and he let the Coyote out to the danger-limit. His best mile was done in thirty-nine seconds flat; from Summit to Helen, thirty-five miles on a bad grade, his time was thirty-three minutes. With old 442 screeching like a lunatic, the special whirled around the long curve into Barstow twenty-five minutes ahead of the forty-six hour schedule.

Scotty rode the engine from Summit to Barstow, and he came back into the Pullman spattered from head to foot with grease and oil.

"We give the ole girl fits on that grade!" was his comment.

Barstow was Scotty's stamping-ground —the point at which he outfitted for his many trips out into the Death Valley country. The desert rats had their own opinion of Scotty and his mine; but they were all on hand to give him a cheer, and "sic him" onto the record.

Those fellows knew Scotty when he ate his meals at a fifteen-cent lunch-counter; and, while they had an opinion that they had entertained the king of the bunco men, they were not too proud to wish him well.

Then Engineer Gallegher took command for the run over the Mojave Desert. The thermometer in the car registered one hundred and twenty degrees, and the silver-gray dust of the desert, following the train like a cloud, sifted in at every crack. Mrs. Scott retired to the drawing-room, as the motion of the train made her ill.

With our coats and vests laid aside, the rest of us haunted the water-cooler; and I remember that Gallegher took the horse-shoe curve outside of Bagdad at such a terrific clip that it knocked us all out of our seats.

At 6.38 that evening we went through Fenner at better than a mile a minute, and on the switch was the east-bound overland which had left Los Angeles at 7.30 that morning. With her start of five and a half hours we had run her down in five hours and thirty-eight minutes, averaging twice her speed. By schedule we were due in Needles at 7.30. Gallegher brought us in at 7.17, and grieved because he had not done better.

Needles made a record for a short stop. Gallegher took 1005 away, and

1010—the new engine, with a wild man named Jackson at the throttle—had the Coyote moving again in exactly sixty seconds by a stop-watch. Trainmaster Mills had rehearsed the whole program.

"This fellow Jackson," said the new conductor, "came down and just naturally bullied 'em into letting him haul this train. Drives her like there wasn't a curve on the line, hey?"

Jackson did. We were trying to eat a salad when Jackson hit the abrupt curve on the California side of the Colorado River. My salad landed in my lap, and the table was swept clean. Glasses were smashed, plates flew about the floor, and the two waiters, turned from black to gray, hung on with both hands. Scotty liked that.

"Do you know what Finley and his fireman were doing when they were coming down the Cajon this afternoon at ninety miles an hour? They were shaking hands and holding her old nozzle wide open. Me for them!"

In the dark the Coyote took to the mountains on the Arizona side of the line. At Seligman, four hundred and sixty miles out, we picked up mountain time, and the watches reported us eleven minutes ahead of the schedule.

WE WERE TRYING TO EAT A SALAD WHEN JACKSON HIT THE ABRUPT CURVE ON THE CALIFORNIA SIDE.

Everybody knew that it was on the mountain divisions that the fight must be won or lost. On the Santa Fe "race-track" east of La Junta the balance compounds were waiting, and, as Scotty told Byrne, "You ain't got a man on your road knows how fast them balance compounds can go."

If the mountain divisions could deliver the goods and snake the Coyote into La Junta within the forty-six-hour schedule, the balance compounds across Kansas could be depended on for the rest.

Between sunset and sunrise the Coyote streaked across Arizona, a night of fighting against heavy grades. The small Arizona towns flickered by the windows of the Pullman like a hatful of sparks tossed out into a gale, and Division Superintendent Gibson held his watch in his hand most of the night.

Gibson is a great railroad man; nothing surprises him. Nothing gets a rise out of him. When he hoisted himself aboard the train at Williams he did not congratulate anybody, or make any talk about what his division was going to do.

"What delayed you?" was all he asked; and he put that question to men who had been knocking the spots out of the best running time ever made on a mountain division.

I did not sleep any the first night. Scotty, being built of whalebone and india-rubber, went to his berth and snored. Holman prowled up and down between the diner and the Pullman, not being able to make up his mind which would be the best place on the train in case of a smash.

Geyer, the German chef, who deserves a medal, prepared a midnight lunch for Holman, and while we were eating, the train came to a stop at some unknown place in the hills. Out in the dark, high-pitched and clear, like the bark of a coyote, came a voice:

"Ohee, Scotty!"

The man of mystery was snoring in the Pullman, and did not respond.

"Oh, Scotty! Come outen that and show yourself!"

No answer.

"You ain't all swelled up because you got money, are you? I knowed you when you was poor. Come out and say howdy!"

Silence from the train.

"Hey, there! I'm thirsty, I am! I ain't got no fool pride like some people! I'd take a drink with a hawss-thief, I would! Ha-a-a-ay, Scotty!"

Then the train began to move, and the unseen serenader gave vent to his feelings with some of the most remarkable profanity a man ever shuddered to hear.

"I guess that must have been Bill," said Scott, the next morning. "Friend of mine."

Superintendent Gibson had given his word to knock half an hour off the best time ever made over his division, the Lowe Special holding the record. His men made us a present of an additional four minutes, for we were in Albuquerque at 9.30 Monday morning, 888 miles from Los Angeles. We made our longest stop at a station in Albuquerque, where they restocked the diner and picked up a new outfit, which included Trainmaster Jim Kurn, a fine specimen of a mountain railroad man.

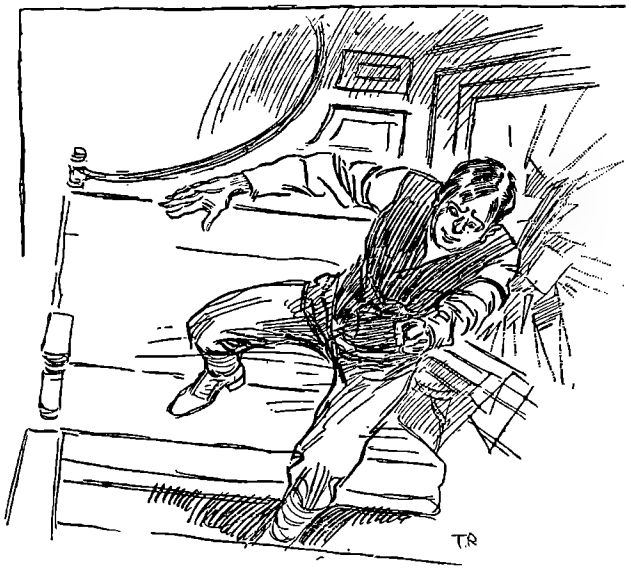
"It's a lot easier to be on a plain's division," said Kurn; "but I like this mountain country, even if we do have to put in twenty-two hours a day fighting these grades. We'll show you some regular railroading when we get down on the Glorieta."

Railroad men the country over know about the Glorieta Pass. Ed Sears is the name of the engineer who took us from Lamy to Las Vegas, up one side of the Glorieta and down the other, and a three per cent grade on both sides. There was some repairing being done on the far side of the Glorieta, and Sears had two slow orders to four miles an hour. He rolled them up into a little ball and dropped them out of the cab-window.

"If they pick us up in the ditch," said Sears. "never let it be said that they found any slow orders on us. We're off!"

Sears jerked the Coyote up Apache Cañon at forty-five miles an hour. We had a passenger on this part of the run —a young man whose uncle was one of the high officials of the road. When the Coyote crossed the top of the ridge and started down the other side, Sears showed us the railroading that Jim Kurn had been talking about. Kurn was out to make up the time which Arizona had lost and send us out of the mountains with a chance to beat forty-six hours into Chicago.

Down the eastern slope of the Glorieta Pass the road is one long succession of compound curves laid out on the side of a mountain strewn with immense boulders. The first time that Ed Sears slammed into a compound curve, the wheels on one side of the Pullman lifted about two inches from the track and came down again with a bang that made



SCOTTY TRIED TO WALK DOWN THE AISLE.

the dust spurt out of the cracks in the woodwork of the car.

That was the program all the way down the side of the mountain. I looked at Jim Kurn. He was doubled up in a ball, with his watch in his hand. I ventured to ask him what would happen if the train should leave the track on one of those dangerous curves.

"The only question," remarked Kurn, "would be the size of the splinters. Don't talk about it."

The Pullman leaped and swayed from side to side as it righted itself around the curves; Scotty tried to walk down the aisle, and his shoulder went through one of the windows. Our passenger did not seem to be enjoying himself, and—I speak for myself—there was one man aboard who was trainsick.

There was a piece of track on the side of that mountain where it seemed that we were running over choppy water. That was one of the places where the track was being repaired; one of the four-mile-an-hour "slow orders." Ed Sears ran over at a mile a minute.

"This is what you call fancy railroading," remarked Kurn, when the engine whistled for Las Vegas. "They laid me out a tough schedule, but we've gained eight minutes on her, and you've had the fastest ride down the Glorieta that any people ever had that came out alive."

As we pulled into Las Vegas, the passenger came over to say good-by.

"I want to get over into Kansas in a hurry," said he, "and I'm no quitter, but I've had all this sort of thing that I want. I'd rather ride on a slow freight than on this train. Send me the newspaper clippings, will you?"

The porter on the Pullman also announced himself after that Glorieta joy-ride.

"Ridiculous; plum ridiculous!" he said.

From Las Vegas to Raton, over the mountains, and then a tremendous sprint from La Junta and the beginning of the "race-track" and the balance compounds. Hud Gardner brought us into La Junta exactly even with the revised schedule. To do it he gave her nine notches and threw away the lever.

Engineer Dave Lesher took the Coyote out of La Junta, and his actual running time for the first 120 miles was 111 minutes. It is 202 miles from La Junta to Dodge City, and it was done in 198 minutes, including three stops caused by a hot box on the diner.

Scotty worried about that hot box, and, because of it, elected to ride in the diner, with a bucket of cracked ice always within reach. Once, when the Coyote was forced to stop, Scotty was packing chunks of ice into that hot box before the wheels were through turning.

Somewhere between Newton and Kansas City, after midnight, I was in the diner, trying to find something to eat. One of the crew of the special, a trainmaster, I think, dropped in after a sandwich. Like most of the men east of La Junta, he had never heard of Walter Scott, and had not the faintest idea as to why the run was being made. He had heard, in a hazy way, that the man who bought the train was a mining millionaire.

At the same time, Scott came in from

the engine, stripped to his shirt and trousers, and sat down.

"Well," said the trainmaster, "what kind of dash-blank fool is it that's hiring this train? What's his idea?"

Scotty winked. I said that, so far as I could judge, the idea was to get to Chicago as soon as possible.

"Man must be crazy," said the trainmaster. "Raving crazy. Nobody but a fool would want to run this fast. Ain't that so?" And he appealed to Scotty himself.

"Don't put it up to me, mister," said Scotty. "You see, I happen to be that darn fool you've been talking about."

The trainmaster was still qualifying his remark the last we saw of him.

At 3.37 in the morning we pulled into Kansas City, stopped just long enough to make a flying change of engines, and we were off again. With daylight we figured that we had a chance to reach Chicago in forty-five hours. The original schedule had been smashed to bits after leaving La Junta.

At Fort Madison, with 239 miles still to go, we were turned over to a big, quiet German named Losee, the engineer whom the officials of the road had selected to set the high-speed mark for the trip. He had one mile in thirty-nine seconds to beat, and that mile was made by the first engineer in charge of the train, John Finley.

Scott asked Losee what he thought he could make the distance in, and Losee shook his head.

"Wait!" he said. "I'll tell you when we get to Chicago."

Between the two little stations of Cameron and Surrey, in Illinois, there is a slight down-grade. The distance is two and eight-tenths miles. It was here that Losee was to let her out and see what a balance compound could do.

"I HAPPEN TO BE THAT DARN FOOL YOU'VE BEEN TALKING ABOUT."

There were three split-second watches on the train, brought along for the purpose of timing that dash between Cameron and Surrey. Losee made the two and eight-tenths miles in 1.35 flat, or a trifle better than 108 miles an hour. Trouble with his engine laid him out for ten minutes, but he did the 239 miles in 244 minutes, including three stops.

The Coyote, dusty and smelling to heaven of scorched waste, limped into the Polk Street Station in Chicago at 11.54 on Tuesday morning, thirteen hours and twelve minutes ahead of the best time ever made by an east-bound special, and seven hours and fifty-five minutes ahead of the time of the Lowe Special, west bound. She had bettered fifty miles an hour between the points, and a thousand miles of the distance had been a tremendous battle with mountain grades.

The thing which pleased Scotty the most was that he had beaten forty-five hours, a thing which General Passenger-Agent Byrne had said was impossible. Here is the telegram he sent Byrne reminding him of that circumstance:

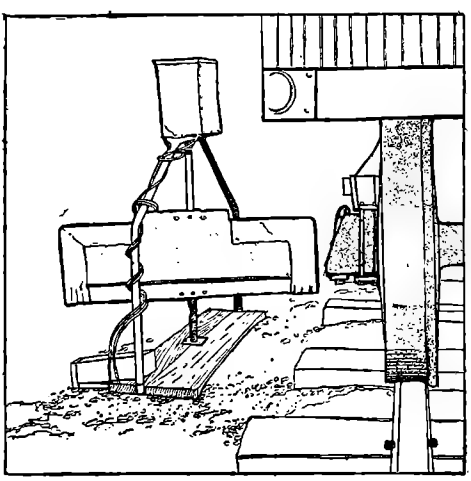
"Forty-four; fifty-four! I guess I'm crazy!"

The man who beats it will have to be crazy.

A TELL-TALE THAT IS POPULAR.

A TELL-TALE is not always a desirable article of furniture to have about, but it is a thing that the New York Central finds absolutely necessary in order to cope with certain conditions. However, as the tell-tale is stationary, and is supported on three legs, not being, therefore, of the uncomfortable, human variety, the employees of the road do not at all object to its presence; in fact, it is a great help to them.

This tell-tale is a spotter in more ways than one, and wherever it places its spot



A NEW YORK CENTRAL TELL-TALE.

and leaves its mark, the tale it tells is taken notice of with a degree of respect that could never be given to a human spotter, no matter how truthful he might, by accident, happen to be.

This spotter is placed in the freight-yards of the New York Central in New York City, and also at the other end of the electric division. The freight-yards are run by the faithful old stand-by steam locomotives, and, therefore, there is no third rail. When the cars leave the yards they have, of course, to run over tracks equipped with third rail.

The third rail is fourteen inches higher than the track and the purpose of the tell-tale is to detect any object on the freight-cars, extended in such a manner as to foul the third rail—for instance, a broken journal box or some other faulty part.

As will be seen by a glance at the accompanying diagram, the device consists of a skeleton frame carrying a pivoted marker. The white ends of the device constitute the marker.

This marker is loaded thickly with white lead, and any obstruction which would run amuck the third rail strikes the painted board and swings it around until it rings a bell in a switchman's shanty close by, at the same time receiving the mark of the paint. The switchman immediately locates the car more easily, notifies the yardmaster, and the car is cut out for repair or adjustment, whichever it may require.

The box-like arrangements at the top and the foot of the frame, carry the batteries which are connected to the switchman's bell by the wires that are also visible in the drawing. The New York, New Haven and Hartford has these detectors placed on its line just before it joins the third-rail system of the Central, the New Haven's electrical system being overhead trolley.

OLD-TIMER TALES—No. 6.

The Evil Genius of the 888.

BY ARNO DOSCH.

IN the April issue of THE RAILROAD MAN'S MAGAZINE, as No. 3 of these Old-Timer Tales, we published the story of the wonderful record of the 999, of the New York Central Lines, in her day—some seventeen years ago—the most remarkable of all locomotives. She had a sister, the 888, built to resemble her so closely that every tiny bolt was an exact duplication.

It was hoped that the 888 would not only equal, but actually eclipse the wonderful record that her sister held for speed and regularity of performance. She was even constructed with more care, in order to gain such an end. But, alas! only evil came her way. Hers was the direct antithesis of the story of the illustrious 999—the story of a giant mechanism that went down to a terrible doom.

Many of our readers asked us to print this story of the 888, after the story of the 999 had appeared. We immediately assigned Mr. Dosch to the task of preparing it. It is a pleasure, indeed, to serve our readers in this way.

A Locomotive Built to Make a Startling Record, Only to Become the Victim of an Unbroken Series of Mishaps and Disasters that Finally Sent Her to Her Doom.

ENGINE 999, on the New York Central, made the fastest mile ever run, as railroad men all know; but who ever heard of her sister, the 888?

Built along identical lines, every detail the same, one flashed into the lime-light to remain there for years, while the other—her spirit broken, her speed gone—has been condemned to a mediocre existence by a fate that is almost human in its pathos.

The story is only known among a few railroad men on the Albany Division of the New York Central. In the big offices of the company, in New York, there is a record of it buried among files that are never opened, but all that is to be learned is that a shifting-engine in the Albany yards bears the number 888. The tragedy that made 888 into a shifting-engine is forgotten.

It is the fate of sisters, whether they are ships or locomotives, that one makes a big name and becomes a household word, while the other remains in obscurity; but few have been thrust into ignominy by so cruel a misfortune as 888.

An Unkind Fate.

She had as engineer old Nathan Hager, who believed in her, and he used to say that she would equal or even break her sister's record if she only had a chance. Both were built to haul the Empire State Express, and both developed high speed.

That 999 was sent to the Columbian Exposition and shown to be the fastest engine in the world, instead of 888, Nathan Hager always laid to luck.

In fact, he used to boast that he had come pretty near to breaking the record of 999, with the whole of the Empire State Express behind him; and tried to do it nearly every night, going east over the level stretch of track between Syracuse and Utica.

It was undoubtedly the greatest joy in his life to see her limber up and begin to burn the rails until the passengers rocked in their berths.

But the evil genius that sometimes attends mechanical sisters was with her, and she could not leave it behind even at sixty—seventy—seventy-five miles an hour. It was, indeed, while going at this terrific pace that fate got between the rails and sent 888 smashing into oblivion.

Her body lives on. The neat lines are gone, the graceful poise is lacking, what is left of her is pensioned off as a shifter; but her soul left her that night on November 18, 1895, when four young idiots who wanted to be desperadoes removed the fish-plates and opened the rails before her, two miles west of Rome, New York.

Her Breastplate Preserved.

After the wreck a doctor from Rome who had attended the injured found her breastplate torn from her body, lying in the mud. Picking it up, he threw it into the back of the buggy, and carried it back to Rome, where he made a present of it to Thomas H. Barry, the chief of police.

Barry hung it on the wall, and there it has remained ever since, marked on the outer circle, "Schenectady Locomotive Works, 1893," and in the center, in large figures, "888."

She bears another breastplate now, but the spirit of the old engine that was as good as her sister, 999, remains in the police station at Rome with the old breastplate.

When I went to Rome to get the story of 888, the first thing I saw when I stepped into the police station in search of information was the breastplate of 888 looking down on me from the wall. It was like the face of some live thing—it represented so much strength and power that was gone—and, now that I know the story, it seems to me as if the spirit had actually been in that mask, and had come to life to tell its own tragic history.

The Spirit of 888.

Sitting there beside Acting Chief Keating, who had had an active part in the most momentous occasion in the life of 888, I looked up at the breastplate, and said:

"You were an engine, and all but human once. I wish you could speak."

And, as well as a spirit can, it replied.

"It was just before dawn," it began, "and it seemed as if Nathan Hager and I were the only live things in all that stretch of waste country lying to the west of Rome.

"Didn't know Nathan Hager? He was a grand old man, and my friend. He used to pat me and tell me that I was as good a girl as my sister, and some day he would show them what I could do. For forty years, ever since 1853, he had been in the service, and I was given him as a reward for a long record without serious accident.

"He had a father who was ninety years old, and a mother eighty-three, who lived at Little Falls, to the east of Utica. Every night as we rushed through I used to give a little, low whistle for him, so that they would know it was we.

"Being old people who did not sleep soundly, they would hear it, and drop off again, conscious that we were all right.

"Years and years before my time he had been signaling them; and it came to be as much a pleasure to me as to him. Neither of us ever forgot.

"On that account, Hager always liked to pass Little Falls on time. If we were a little late, we tried to pick it up before we reached there. That night we were fifteen minutes to the bad, and as soon as we cleared Syracuse Hager began to open up.

"We liked it, both of us, and that night I was feeling good.

"As we flew down the clean line of the rails, I lost all sense of time and space. If there was one piece of track on which we felt safe just then, it was in the waste west of Rome.

"Two weeks before, in the morning, a fish-plate had been found torn off, and some tools lying near made it look as if some one had been trying to throw the rails.

"So a guard had been placed to patrol the track. Only the night before we had passed several track-walkers, and we did not know that they had just been taken off.

The Wreck.

"But, guard, or no guard, we had an eye out for the spot where the fish-plate had been torn loose, although we did not let up on the speed. All at once we could see that the gleam along the tops of the rails was broken two hundred yards ahead.

"Two hundred yards! At the speed we were going, what could we do to save ourselves in that little space?

"Hager threw on the reverse, and I never worked so hard in my life as I did in the next few seconds trying to let down on the speed.

"It was all off with us. We had no chance, and we knew it; but we hoped to save the twelve mail-clerks and the passengers asleep in our cars. It was a terrible moment. The steam rushed to my throat and throttled me, and my wheels pounded up and down on the rails until I rocked like a mad engine.

"But I could not get down my speed. Maybe it was fifty miles an hour, maybe it wasn't. All I know is that I struck the ties ten feet ahead of where I left the rails, and tore the track to pieces for a hundred yards before I jumped the embankment and landed on my back in the swamp.

"Just as I turned, my light flashed across the waste and showed four boys legging it for all they were worth. The hat of one blew off, but he did not stop to pick it up. Hager saw them too, but the next instant he was deep in the mud with all my weight on top."

A Crippled Giant.

The recording ticker that reported the Rome patrolmen on their beats clicked for a moment at my elbow and then the spirit went on.

"I didn't really know what speed was until then. When I went into the ditch, I picked my tender off the track as if it were a rock in a sling and threw it over my head so hard that it buried itself in the mud.

"When it left the rails, it jerked the first of the mail-cars over us and threw it seventy-five feet beyond.

"A deadhead, Robert Bond, of Syracuse, was on the forward end of that car and, with the car literally flying, he had a ride in the last few seconds of his life that beat anything that was ever made on a railroad.

"The mail-clerks were all in the second car and they were hurled to the rear end like so many potatoes, and well it was for them. This car struck the first car and crumpled half its length, but the mail-clerks lay unconscious in the unharmed end.

"The sleepers were so far behind that they had been jerked almost to a standstill before they left the track. All but one landed in the swamp.

"Quivering and stunned, I lay in the ditch. I was clear of the tracks and the wrecking crew did not bother with me. Then the breastplate was brought here and I clung to it, for I knew the engine was dead."

The Desperadoes.

As the spirit paused, I turned to Keating and he pointed over his head to a photograph of four boys, subscribed with the names: Herbert Plato, Fred Bristol, Theodore Hibbard and J. Watson Hildreth.

The first three, he told me, were natives of Rome and the fourth, the leading spirit, the wayward son of a New York lawyer.

The history of the crime is curious, particularly as several other gangs of boys scattered through half a dozen States, tried to duplicate it within the next few months. It made a big stir at the time.

Hildreth was sixteen and brimful of outlawry. He had read about robber chiefs and he wanted to be one. After being expelled from several schools he had chosen Rome as a seat for his operations and had obtained an allowance from his father on the pretense of at-

tending an agricultural college that had no existence in fact. With his allowance he was able to organize a gang and supply it with ready money which he dealt out in a grandiose manner. He was the boy leader of Rome and the other three numbered his lieutenants.

They drank and smoked and played cards until late at night and in general regarded themselves as hard characters. But card-playing palled and Hildreth had to offer his gang something more thrilling. So he suggested holding up the express.

At once it appealed to their imaginations as a desperately evil undertaking, so they pocketed their revolvers, which Hildreth had bought for them, and went out early one morning to try it.

It was below their dignity to walk, so they hired a carriage and driver from the brother of the chief of police and drove a mile out of town. There they paid the driver grandly and started off through the waste afoot.

This was the night they could not get the fish-plates loose, so they had to wait until the guards had been removed. But at the first opportunity they were at it again. This time they thought it better to go afoot and worked for an hour between three and four in the morning before they had set the death-trap.

Traced by a Hat.

When they heard the express they drew their revolvers once more and Plato fastened about his arm a hammer he had brought along to knock out the brains of the survivors with. But when they saw the wreck and understood what it meant for a train to be derailed at fifty miles an hour they turned and fled. Hildreth lost his hat, and, although it had his name printed on the inside, he did not stop for it then. Vaguely, however, he realized that it would implicate him if found.

But he showed what a boy he was. In Rome there lives a newspaper correspondent, Dick Howland, who is known the country round, and the moment anything happens some one always runs to tell him about it first. On this morning he was still asleep when he heard a breathless voice calling under his window. Looking out in the half light he could see the flushed face of Hildreth.

"Say, Dick," he called out, "there's a big wreck. I thought I'd let you know."

With face still flushed, the boy then went to the house of a girl he was in love with, to get a cap. She was up and cooking hot-cakes for breakfast.

He was hungry and those hot cakes smelled good to him. So he stopped and ate his fill, although by this time he realized that the hat was a dangerous piece of evidence. When he finally returned to the wreck his hat had been found.

In the end all confessed. Bristol died before trial and the other three were sentenced to life imprisonment. Plato died there two years later and the other two were pardoned in 1905. Meanwhile, the girl who cooked the fatal pan-cakes, had had her faith so completely shattered by Hildreth's actions that she went into a decline and did not live through his term in prison.

GRADE CROSSINGS ARE DISAPPEARING.

WHILE invariably avoiding grade crossings on new and revised construction work, the Pennsylvania Railroad has, in the last ten years, been eliminating all crossings at grade as rapidly as practicable.

A compilation for the period since January 1, 1900, shows that 673 grade crossings have been removed on the lines of the system east of Pittsburgh and Erie. These figures are of record of September 1, 1909, and do not include the ten crossings to be eliminated by the change of line to be made through Bristol, Pennsylvania, on the New York division. On the lines of heaviest traffic between New York and Washington and Philadelphia and Pittsburgh, the company has abolished 256 public grade crossings in the past ten years. The 774 public crossings remaining are scattered over 574 miles of road, and are, with a few exceptions, at unfrequented highways, where traffic is inconsiderable. There have also been removed, in addition to the 256 public crossings, 129 private crossings at grade. — *Railway and Locomotive Engineering.*

THE BIOGRAPH BANDITS.

BY HENRY H. TINKHAM.

A Case of the Turning of the Worm, with Some Results That Surprised the Worm.

SLATTERY slowly backed the wheezing old "99" down from the roundhouse and prepared to couple to his train.

As his name indicates, Slattery was Irish. He was still on the near side of forty, but seemed to lack that strain of combativeness and initiative that is inbred in almost every individual of predominant Celtic blood. He had always preferred unobtrusively to slip along the pathway of least resistance.

So it was, while Slattery was held on "backwoods" and "brush" runs, many of his juniors in the service and his inferiors at the throttle graduated from his class and gained their reward in the proud possession of the fast, spider-drivered, main-line engines. For, on the Stone Island, seniority did not rule.

For weeks something within him had been worrying Slattery. He ceased to view things with the same complacent attitude of philosophical satisfaction. Perhaps it was his Celtic blood at last asserting itself. He seemed awakening to a belated realization that, while others forged ahead, he had been hopelessly at a standstill.

Pride, which had heretofore been an unknown quantity in Slattery's make-up,

"GOOD! DON'T SAY THAT WORD TO ME. I AIN'T GOOD FOR NUTHIN'."

was coming into its own. He boiled inwardly as his quickened imagination pictured the sorry figure he must have cut all these years in the eyes of more favored fellow workmen. For Slattery was making that very human mistake of ascribing his own failures to the partiality of unappreciative employers. He became ill-tempered, critical, and dissatisfied.

As he hung listlessly out of the cab-window, waiting for the signal to send him away upon that despised run over the Gull Mountain division, he was in a particularly sour mood. In his mind he ran over the cases of a dozen or more younger men who had been pushed up and over him to the choicest of main-line throttles. There was Everett, for instance.

Slattery had scarcely turned his mind to the young engineer when No. 5, the main-line flier, roared into the train-shed from the West, bringing a vast cloud of dust, and stopping with a businesslike flourish and a shrieking of air-brakes. At the throttle of the big 1066, one of the finest machines on the whole road, which pulled the fast train, was Everett, the object of Slattery's present bitterness.

Slattery looked over the big Pacific locomotive with an envious eye. He gazed with secret admiration upon her massive, symmetrical lines, the almost human Walschaert valve-gear, her duplex pump, the great low-pressure cylinder, and even the little automatic bell-ringer perched high upon her enormous boiler. He glanced at her safety-valve, drumming merrily at the apex of the steam-dome under a pressure that would have torn the little 99 to shreds.

Everett, the proud possessor of this masterpiece of locomotive art, had begun his railroading under Slattery's watchful eye. Slattery had taught him all he knew about locomotives.

Slattery's unpleasant frame of mind was amply reflected in his uninviting scowl; and as Everett swung down from the 1066's lofty gangway with a cheery greeting, he returned an unfriendly grunt. Everett looked at him curiously, and hesitated as if to pursue the conversation, but, noting Slattery's forbidding frown, turned away with a shrug and devoted himself to oiling.

Five minutes later No. 5 pulled out. The 1066 picked up her thirteen Pullmans as if they were a train of paper coaches, and they whisked past Slattery's little 99 as one snaps the long lash of a whip. Slattery's scowl became even more threatening.

Mooney, his conductor, came up with the orders. He passed Slattery his "flimsy," and waited for him to look it over. Slattery read:

> Train No. 43, Eng. 99, Condtr. Mooney, Engr. Slattery, will stop on signal two miles east Gull's Head. Condtr. Mooney to transmit explanatory instructions to crew.

Mooney grinned appreciatingly as the engineer's frown dissolved and a puzzled expression shone in his eyes. Slattery's astonishment was real. He slowly spelled the order through a second time.

"What is it all about?" he finally inquired.

"We're goin' ter be held up," explained Mooney, his grin broadening.

"I know that," said Slattery shortly. "But why?"

"Real hold-up," said Mooney.

"What?"

"Yep," continued the conductor, enjoying his engineer's wide-eyed amazement. "Real goods. Goin' ter flag us, shoot us up, blow up the express-car, and go through the passengers. And we got-ter stand fer it. That's th' orders."

Slattery's none too patient temper was getting away from him.

"Aw, cut that kiddin'," he said.

"Straight goods," returned Mooney. "Some movin'-picture concern's goin' ter take a train-robbery picture down in the rock cut on the Gull's Head Hill. They fixed it up with th' old man. Ask'd him first if they couldn't pull it off on No. 5.

"'Nope,' McLane told 'em, 'I can't bother No. 5.' Then they asked about us.

"'Sure,' he says '43's got all day ter get inter Lake City. Yer c'n hold her up if yer wanter,' and with that he wrote an order to Shanahan."

"Got all day to get there in; eh?" repeated Slattery savagely.

"We don't 'mount to much round here, Mooney. Wouldn't bother No. 5. Oh, no! She's too good! There's that

kid, Everett! Why, when I took him off the farm he couldn't tell a draw-head from a steam-gage. Taught him all he knows. An' now he's so high and mighty the old man won't even bother him. But Slattery!" Slattery spoke his own name with a world of sarcastic emphasis.

"Slattery!" he repeated. "He don't 'mount to nuthin'. Got all day to get inter Lake City. Hold him up? Throw him in the ditch? Sure! He's just plain no account, that's all."

Slattery's tone was full of self-pity, but Mooney, to whom the whole affair was a welcome diversion in the day's work, chuckled at his discomfort with unfeigned glee.

"What's matter, Slat? Ain't yer feelin' good?" he questioned.

Slattery bristled.

"Good?" he echoed. "Good! Don't say that word to me. I ain't good for nuthin'."

Mooney went back to his train, shaking his head. A minute later he gave Slattery the signal, and No. 43 pulled out.

Jumped out, perhaps, was more the word, for Slattery turned on the sand and gave the old 99 a wide throttle. She slipped wildly a second; then her drivers caught, and she nearly pulled the knuckles off the automatic couplers. No. 43 left Whitely so precipitously she almost ran away from the astonished Mooney, who stood dreaming on the platform.

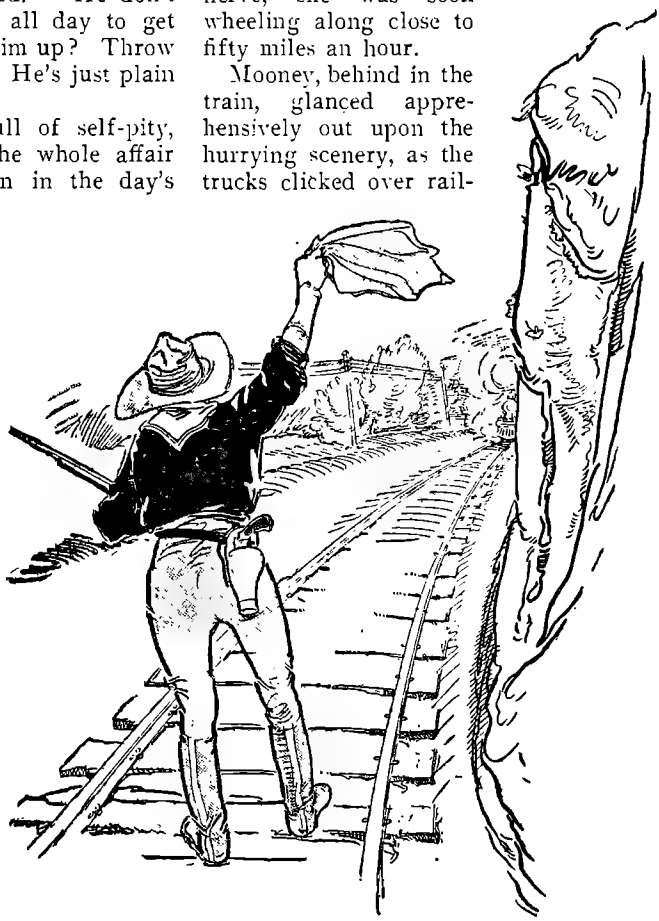
Out in front, Slattery was breaking in a green fireman, whom he cursed, criticized, and bulldozed until the boy was so nervous he could hardly spread the coal.

The fire got thin, a cold draft struck the 99's scaly old crown-sheet, and two or three of her tubes began leaking.

As she refused to steam freely, the engineer continued for some time to vent his sarcasm upon the inexperienced youth, but finally grew silent, and grimly devoted himself to running.

In spite of her leaking boiler-tubes, he drove the old engine with a nicety of cut-off that conserved her run-down steam supply; and as the fireman regained his nerve, she was soon wheeling along close to fifty miles an hour.

Mooney, behind in the train, glanced apprehensively out upon the hurrying scenery, as the trucks clicked over rail-joints at ever-decreasing intervals until they blended in one wild, incessant rattle of gear. The old coaches were jumping and swaying like ships at sea, and passengers were beginning to look alarmed.



A FIGURE, WAVING A RED CLOTH, DETACHED ITSELF FROM THE GROUP.

In the cab, Slattery, still running at a furious pace, kept growling to himself as he repeated, over and over, McLane's slighting reference.

"Hold her up, if you want to. She's got all day to get into Lake City. But No. 5—" Slattery's temper blazed. He

cursed anew, and gave the creaking, bucking old 99 another notch of throttle.

No. 43 was the single daily train over the Lake City or Gull Mountain Division. She carried mail and express in a combination baggage-coach. From division headquarters at Whitely, she followed the main line twelve miles and then went off to the north for a three-hour climb over the sharp grades of Gull Mountain to the mining-camp known as Lake City.

Gull's Head, mentioned in Slattery's peculiar orders, was the junction-point where No. 43 was destined to leave the main-line steel and roll out upon the "Gull Mountain Division."

The place specified in the order directing No. 43 to submit to the indignity of a pseudo train robbery was a wild stretch of track where the right-of-way literally was carved out of solid granite, an ideal stage setting for a hold-up picture.

Slattery had the old 99 going at a pace that would have been a credit even to the "favored" Everett and his pet Prairie type passenger racer, as she dipped over the brow of the hill leading to the rocky cut where the hold-up was scheduled to take place. Ten miles of hill and dale had been covered in exactly ten minutes, and No. 43 was three minutes ahead of time when Slattery noted with a grin the little group of figures hurrying about far down the track. They evidently were not expecting so early an arrival.

While he reviewed and soliloquized over the many indignities he fancied had been heaped upon him, a sudden resolution shaped itself in his overwrought brain. At first it was but a wild, vague idea, but in his poignant self-pity it soon grew into a fixed resolve. He determined to demonstrate his independence to the company and to administer a suitable rebuke for all the accumulated wrongs it had heaped upon a faithful and devoted servant.

Slattery's Irish was beginning to be very much in evidence, and his awakening threatened to be as thorough as it had been delayed. His decision once made, the engineer devoted himself to the execution of his wild plan in a manner that would be well in keeping with his ideas of a just revenge.

With steam pouring from her ill-packed stuffing boxes, her age-loosened cross-heads, and the driving and connecting rod bearings uttering a wild chorus of metallic remonstrance at the unaccustomed shaking, the old 99 fled down the grade toward the waiting train-robbers, gaining speed with every turn of her rusty driving-wheels.

As they drew near, Slattery saw that an obstruction had been placed across the rails, and soon a figure, waving a red cloth, detached itself from the expectant little group of biograph "bandits" and started along the track toward the approaching train. Slattery waited until he was within three hundred yards of the flagman before he acknowledged the signal with a blast of the whistle. He grinned exultantly as the figures on the track shuffled about in a pantomime of anxiety. It was quite evident that they feared he was not going to stop.

At the last moment Slattery tossed the lever of the engineer's valve into the emergency notch, and every truck buckled up as the brakes locked tight. To make the stop more effective, he threw the old 99 into the reverse and turned a hatful of steam into her cylinders.

She bucked like a yearling, coughed and snorted a few times, locked her drivers, and settled back into the breeching like a balky mule.

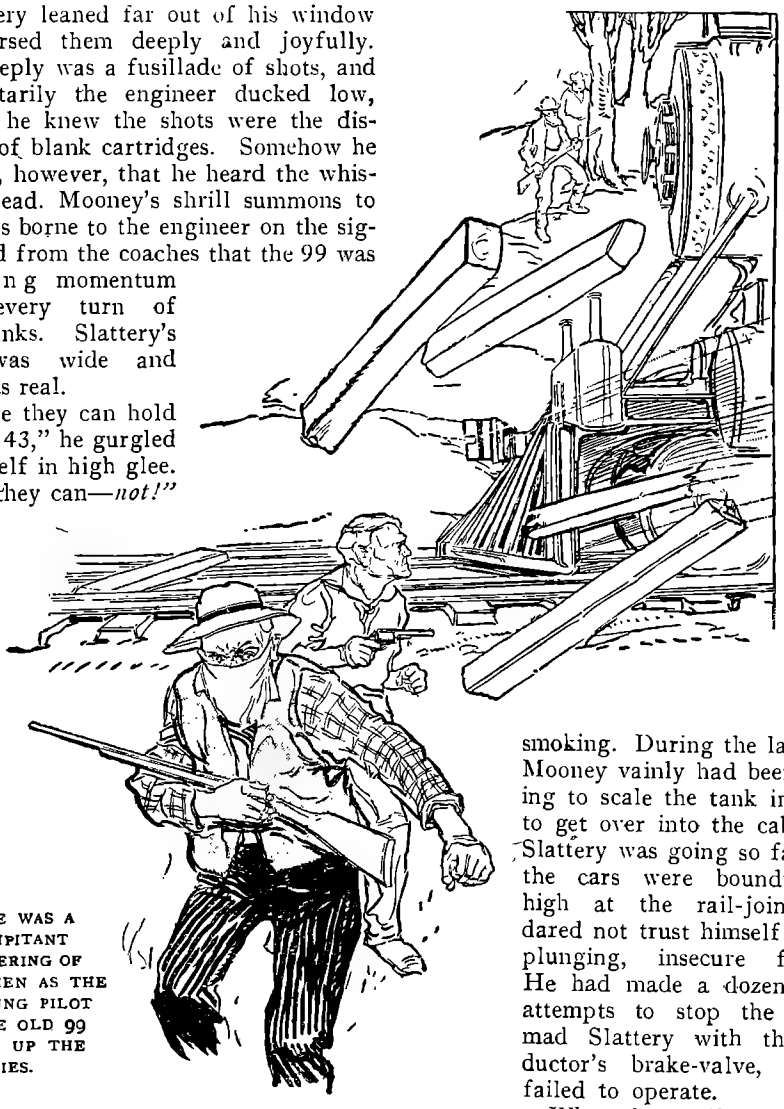
Slattery then saw that the obstruction consisted of several ties piled loosely upon the rails, and as the train lost headway he smiled to himself. Among the little party out ahead, arranged in approved bandit formation, there was a dull glitter of blue steel firearms.

When he was yet one hundred feet away he threw off the air with one hand and pulled the throttle wide with the other. He sent the sand streaming under the tires of the driving-wheels to give certain traction and, cursing happily, reached for the whistle-cord, and sent up a few wild shrieks of defiance.

On the down grade the old engine caught the rails and leaped ahead like a frightened doe. There was precipitant scattering of armed and masked men as the low-hung pilot of the old 99 picked up the ties and tossed them vindictively hither and thither. Startled cries arose from the would-be train-robbers.

Slattery leaned far out of his window and cursed them deeply and joyfully. Their reply was a fusillade of shots, and involuntarily the engineer ducked low, though he knew the shots were the discharge of blank cartridges. Somehow he fancied, however, that he heard the whistle of lead. Mooney's shrill summons to stop was borne to the engineer on the signal-cord from the coaches that the 99 was gaining momentum with every turn of her cranks. Slattery's grin was wide and —it was real.

"Sure they can hold up No. 43," he gurgled to himself in high glee. "Sure they can—*not!*"



THERE WAS A PRECIPITANT SCATTERING OF ARMED MEN AS THE LOW-HUNG PILOT OF THE OLD 99 PICKED UP THE TIES.

The anxious fireman stole a wondering glance at his engineer. Finally he leaned over and yelled in Slattery's ear:

"They'll 'can' you sure."

Slattery nodded, not the least disturbed at the prospect.

"Maybe they think they can play their monkey-shines on me," he yelled across to the nervous fireman.

"Maybe they'll hold up old Slattery. Everett and his No. 5's too good. Sure! But Slattery—maybe they'll hold him up. Yes, maybe they will; but not today." Slattery laughed loudly.

The train came into Gull's Head, all smoking. During the last mile Mooney vainly had been striving to scale the tank in order to get over into the cab; but, Slattery was going so fast and the cars were bounding so high at the rail-joints, he dared not trust himself on the plunging, insecure footing. He had made a dozen futile attempts to stop the speed-mad Slattery with the conductor's brake-valve, but it failed to operate.

When they pulled up at the junction, Mooney raced ahead and met Slattery as the engineer leisurely swung down out of the cab. The conductor was apoplectic. He choked and sputtered before he finally managed to control his outraged throat.

"What's matt'r you, you blank, blank, blankety blanked fool? Why in Hades didn't ye stop? Couldn't ye hear me 'pullin' yer down?' Want me ter break the darned cord?" Mooney's questions came so fast Slattery couldn't have gotten in a reply. Slattery didn't want to. He enjoyed Mooney's paroxysm.

"Can they hold up No. 43?" he

asked airily, looking at the sky, the trees, the little station, and finally at the angry conductor.

Then he answered himself:

"Sure they can—*not.*" He grinned broader than ever as Mooney exploded into a torrent of profanity.

"No. 5's too good," continued Slattery. "Couldn't afford to bother No. 5. Oh, no! Everett might lose some nickel off the 1066. But No. 43—huh! 'She's got all day.'

"Say, Moon', old boy, did they hold us up?" Slattery simply was hysterical with glee.

"Did they hold us up? Yes, they did —*not.*'" the gleeful engineer repeated again and again.

The Gull's Head station-agent, coming down the platform, interrupted Slattery's boisterous merriment.

"Come into the office," he said, addressing the engineer. "Old man wants to talk with you."

Slattery's loud laughter died in his throat. He had had his master-stroke of revengeful independence, and now he must pay the penalty. He thought of Maggie and the little Slatterys, whom he loved, at home.

But there was a snug little balance recorded on the pages of the family bankbook, and Slattery thought he knew where he could get a job. Anyway, he had demonstrated his independence. He squared his shoulders and smiled again, and jauntily followed the operator into the boxlike telegraph office. Mooney trailed silently along behind.

"Fine bit of work," commented the station-agent as he reached for the key and began calling division headquarters.

"What?" asked Slattery, eying him suspiciously.

"How did you happen to get next to it? Do tell?"

"How'd I happen to get next to what?" demanded Slattery belligerently. His temper was slipping again.

"Well," commented the telegrapher, looking the engineer over admiringly, "you take it cool enough." Slattery started to say something, but the operator had devoted himself to the wire. The sounder was speaking.

"McLane sends congratulations," he translated as the dots and dashes flowed in over the wire from headquarters. Slattery looked sheepishly about, and he coughed nervously.

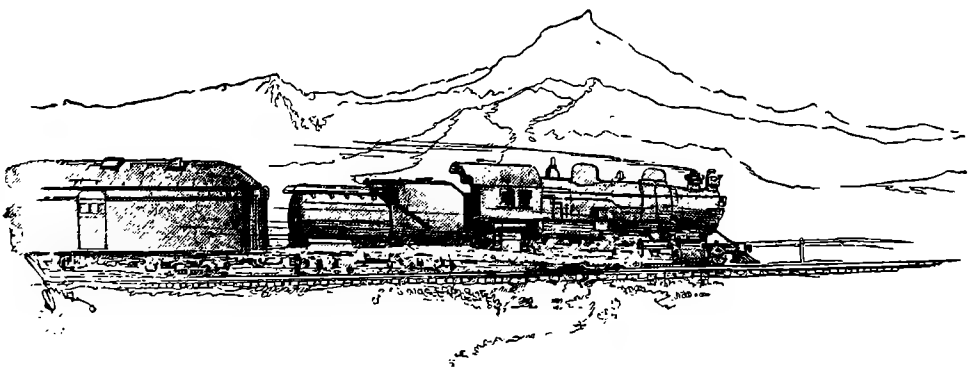
"Old man's kiddin' ye before he ties on the 'can,'" was Mooney's grinning comment. The sounder again took up its message.

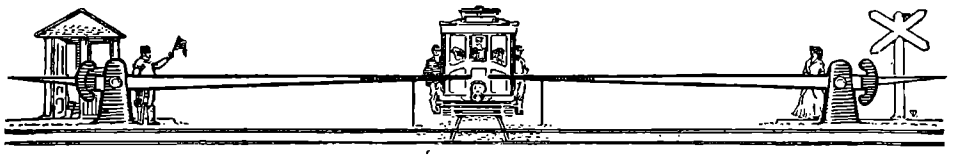
"McLane says," repeated the operator, "'Express-car of No. 43 carried fifty thousand dollars in gold for paymaster of Yellow Boy Mine at Lake City.'" There was a break in the staccato voice of the instrument. Slattery's eyes were popping from his head. Then the operator resumed his measured translation of the metallic Morse.

"McLane says: 'Received tip five minutes after you pulled out that moving picture frame-up was a "stall" to cover attack on express-car. Kid Gleason, escaped Carson City convict, led bandits. Posse in pursuit. Your action saved company fifty thousand dollars. Will not forget. Report to me in morning.'"

"Now, ain't ye the fine, sly old divil?" reproached Mooney, lapsing into broad brogue in the shock of surprise and astonishment.

Slattery was no fool. He knew how and when to keep his mouth closed.





Handling 1200 Trains a Day.

By T. S. DAYTON.

RAILROAD man and weather prophet—that's the artistic combination that is the make-up of a signal-man who handles the Coney Island crowds. If a storm comes up suddenly, the great crowd of pleasure-seekers make a rush for home, and they are shipped there safely at the rate of 1,000 a minute. That's going some.

Think of moving the entire population of St. Louis in all directions, some as far as twenty miles, in a few hours. The men who accomplish this feat sometimes work so hard during their trick on the hot summer days that water has to be thrown on them.

The Gigantic Task at Culver Terminal, Coney Island, When Over 500,000 People Make Up Their Minds To Take a Day's Outing.

HOPING and praying for relief, New York had tossed in its sleep and cursed at its work through three days of almost intolerable heat. Saturday's weather forecast promised no relief.

By three o'clock that afternoon there were more people at Coney Island than there are in Pittsburgh; by six o'clock the number of pleasure-seekers was greater than the population of St. Louis. Over seven hundred and fifty thousand people swarmed the streets and beaches. But the daily miracle of summer railroading was not half done.

At four o'clock the boss of the "peak" trick climbed the stairs of the switch-tower at the Culver terminal. Through this railway station three-fourths of the visitors to Coney Island pass. This train-despatcher, or signal-man—unknown to the general public and unnoticed by them—controls the lives and safetv of more than a thousand people each minute of the eight hours he is on duty.

During his trick comes what the electricians call the "peak of the load." People get tired, or a storm comes up, and every one tries to get home at once.

With a nod of greeting to the man he was to relieve, the "peak" boss took off his coat and collar and rolled up his shirt-sleeves. He glanced at the brazen sky and at the thermometer in the tower. Then, for a moment, he studied the trains and trolleys on the tracks below. At his gesture that he was ready, the man who had been on duty since eight that morning gave place to him, and the monotonous calling out of track numbers to the men at the switch-levers in the tower went on without interruption: "Six, eleven, four, five, twelve."

As each number was called, a switch was set, and a car or train moved in or out. The lever-men were stripped down to sleeveless undershirts and trousers, like the gun-crew of a man-of-war in ac-

tion. They worked swiftly, but with the unhurried haste of machines.

An extra, waiting to relieve any one who might drop with the heat, dashed water over their necks and shoulders from time to time or gave them drink. The chief signal-man kept his eyes on the tracks, the cars, and the crowds, with the intense concentration of a cornered chess-player.

A thousand people a minute were coming in. The cars were going out half empty. Two hours went by. The crowd was still coming, but a few cautious ones were beginning to start for home so as to avoid the avalanche of humanity that would pack the cars later.

The Rush for Home.

Suddenly, above the mighty roar of carousel music, the strident cries of the barkers, the tooting of motor-horns, and the endless shuffle of innumerable feet, came a distant rumble across the water from the southwest. It was so faint that the men in the signal-tower glanced at each other questioningly. Five minutes later there was an unmistakable crash of thunder.

An instant more, and the black-cloud curtain that had risen from the sea obscured the sun, and, before all but the most nimble were under cover, the rain came down in sheets.

Almost before the first crash of thunder had died away the signal-man had called up the general office in Brooklyn and had given this brief message:

"Bad storm coming. Rush cars Culver terminal."

No one knows how many people piled into the elevated and trolley-cars during the next two hours. The storm lasted, perhaps, twenty minutes, but the skies were threatening for an hour afterward. The rush for home continued fiercely until past eight o'clock.

Trolley-cars and trains went out in a continuous string, every one packed to the platforms. In those two hours more than two hundred thousand people—tired, perspiring, cross—pushed through the gates, dashed down the loading platforms, and hurled themselves aboard the cars. The very momentum of their onset packed them closer together inside.

While nearly two thousand people a minute were being hurried homeward, the despatcher and the lever-men were working under a terrific strain. As the signal-man rapidly called out number after number the men at the switch-levers sprang back and forth.

Three dropped in their tracks during those two hours, but others were waiting to relieve them, and the work did not slacken for an instant. Between eight and nine o'clock there was a lull, and the despatcher ate a sandwich. He could not have told you what he was eating. His eyes never left the cars and the crowds waiting to fill them.

By ten o'clock the multitude began gathering again, but it was not as densely packed or as fiercely obsessed as the one that had stormed the cars when the tempest broke. At midnight, when the boss of the "peak" trick went off duty, the rush had slackened noticeably.

People would keep on going home until dawn. Then a fresh army would commence hurrying to Coney Island once more. The despatchers changed places with barely a word of greeting, and the work went on through the summer night.

The man who had been handling nearly two thousand people a minute for two hours, and without a single accident, was weary. The strain and the heat had been awful. He climbed laggingly aboard a waiting train and dropped into a seat. A talkative passenger was loudly berating the railroad for its general inefficiency in handling crowds.

The despatcher asked the guard to wake him at his station, and fell asleep almost before the train started. He was not aware that he had done anything remarkable that afternoon and evening. He only knew that it had been up to him to make good on an unusually tough job, and that he had not fallen down. It was all in the day's work, anyhow.

A Busy Trick.

Under ordinary circumstances the despatcher in the tower at the Culver terminal handles more people a minute during rush-hours than any other signal-man in the world. When a crisis arises his achievements are among the most marvelous things in railroading.

No one can tell much in advance when an emergency like this is likely to arise, but these sudden summer tempests are looked for three or four times every season. To make the most trouble they have to come about six in the afternoon, after a sizzling hot Saturday or Sunday.

Every day the Coney Island railroad people—and everybody else that has anything to do with that great resort—read the day's weather forecast. The most that can be done to provide a little against being swamped by the hundreds of thousands of people who want to get home at once, is to fill the storage-tracks with "storm-trains," as they are called. But this supply is quickly exhausted, and the only thing to do then is to keep the traffic moving as fast as safety will permit.

Run Forty-Five Seconds Apart.

There are four other trolley and elevated terminals at Coney Island, but the Culver gets three times as many people—coming and going—as all the rest combined, because it is located the nearest to the biggest of the most spectacular amusement enterprises of that great resort.

There are three sets of tracks — one trolley and two elevated sections—all on the same ground level. Each section has but a single track in and a single track out. On the elevated sections, six-car trains, each holding one thousand two hundred passengers when packed, are sent out forty-five seconds apart—sometimes even a little closer when the emergency is great. On the trolley tracks the cars are sent whizzing away at the rate of one every ten seconds.

To some casual visitors to Coney Island it seems that the crowd stays late; to others, that it goes home early. Both of these impressions are correct. All the people who visit Coney Island do not come from New York and Brooklyn and the near-by suburbs. There are tens of thousands of excursionists every Saturday and Sunday from as far away as Albany and Philadelphia—from everywhere, in fact, within a radius of one hundred and fifty or two hundred miles.

Several times a season excursions from such distant points as Buffalo unload a few extra thousands on the island. As a rule, these excursionists all have to start on their homeward journey about half past four o'clock in the afternoon, and they do it with a rush.

There are also a few tens of thousands of cautious people who decide to go home at the same time, in order to escape the crowd. The trains coming down to the island are still comfortably filled at that hour with people intending to spend the evening there, so the human income and outgo about balance each other.

The tide neither rises nor falls perceptibly. About nine in the evening the avalanche begins to gather force for its homeward movement. From that time on until midnight, even when there has been no storm to set things askew, the despatcher in the tower and the superintendents on the ground have no rest.

The despatcher at the Culver terminal, on whom so much depends, has an army of between eight and ten thousand men subject to his orders. With the exception of one surface line, all the trolley-cars and elevated railroads in Brooklyn are controlled and operated by the Brooklyn Rapid Transit Company, whose train employees number about sixteen thousand men.

When the weather indications point to a clear day on Saturday or Sunday every wheel and every man possible is diverted to the Coney Island traffic. The result is that nearly ten thousand trainmen run to the Culver terminal, and there become directly subject to the orders of the despatcher in the tower by the sea.

He Rules the Roost.

The trains and trolleys that center there start from a score of different points in Brooklyn. The majority of them leave from the New York end of Brooklyn Bridge, but there are many that get their loads from the ferries that ply across the East River and from the Subway stations in Brooklyn.

The despatcher is directly subordinate to the superintendents of elevated and trolley traffic, but these never interfere with his work so long as everything runs smoothly. These superintendents are to be found rushing about the tracks, giving directions to the men in charge of the

loading platforms, and trying to be immediately on the spot whenever bedlam breaks loose—as it frequently does in such vast, tired crowds.

They may get excited and hurried in their work, but the man in the tower must always be calm and cool, and never lose his head. He must have a complete grasp of the situation, no matter what happens. His one thought is the hundred thousand people an hour whose lives he holds in his hands, and how to keep the loaded trains moving out swiftly and as close together as safety will permit.

Cars and trains are coming in as fast as others go out. He must see that a clear path is made for each; that each gets to its proper platform and goes out again with the least possible delay. An instant's hesitation, a single error in judgment, would mix things up in the yard so that it would take half an hour to straighten out the tangle.

Any unusual delay in handling the jostling, excitable, peevish crowd would almost bring on a riot. Yet so expert are all these men who handle the despatcher's trick one after another through the day and night that there is rarely any halt in the steady stream of trains rushing in and out.

These despatchers work eight hours each. The one who goes on duty at four in the afternoon and works until midnight has the hardest task, because he gets the "peak" of the load of traffic. The lever-men in the tower, who throw the switches which simultaneously set the block-signals, also have an arduous task. They must unerringly follow the orders of the despatcher. Every number he calls out means the pulling immediately of one of the big levers. Sometimes two or three must be set almost simultaneously to make a clear path for an incoming or outgoing train. The physical tension on these lever-men is so severe—especially on hot days—that extras are always waiting to relieve, without a moment's delay, those who may be overcome by the exhausting work and the heat.

They nominally work in eight-hour shifts also, but it is arranged so that one fresh man comes on every hour.

The number of visitors to Coney Island mounts up higher and higher each year. Five years ago half a million people in a day was considered the record. Last year seven hundred and fifty thousand was high-water mark.

New terminal facilities are being added continually to keep pace with the ever-rising flood of traffic, but always the unerring brain of the calm, cool despatcher in the signal-tower by the sea is the key to the situation. Coney Island is the most spectacular summer amusement resort in the world, and the problems of train-despatching there—like everything else—are unique and spectacular.

PENNSY INSTRUCTION CARS.

TO increase the efficiency of the men operating its trains, the Pennsylvania Railroad has adopted the use of signal instruction cars on all of its divisions. The divisions on the main line, between Philadelphia and Pittsburgh, have just been equipped.

The company realizes that safety of operation depends upon its employees having a thorough knowledge of all signals, and it has decided that personal instructions shall be given frequently to enginemen, firemen, conductors, and trainmen, which will include not only block and interlocking signals, but all other signals used in the movement of trains.

The Pennsylvania's new signal instruction cars are sixty feet long, divided into two compartments. One room will be used for examinations, while the other will contain a table upon which is to be placed under a glass cover a large track-chart of the railroad, which can be rolled back and forth by means of rollers placed at each end.

This chart shows all main running tracks, switches, cross-overs, all signals, track troughs, stations and mile-posts. The men will be given an opportunity to study this chart prior to passing an examination on it. Each car is provided with a set of model signals which can be manipulated so as to show the signal indications the men receive out on the road.

The cars are in charge of examiners, who will have charge of all examinations, with the exception of those on machinery and air-brakes. The cars may also be used for examination of employees on other subjects than signals—such as train rules.

A HEART OF THE NORTH.

BY GEORGE VAN SCHAICK.

A Long Journey Through the Forest, Guided by the Wounded but Ever-Patient Anne Marie.

SYNOPSIS OF PREVIOUS CHAPTERS.

PIERRE, a young French-Canadian with Indian blood in his veins, while hunting and trapping in the Canadian woods rescues Anne Marie, a young Indian girl, and her old father, whose canoe has been upset and demolished by a moose. Father and daughter are badly injured. Pierre takes them to his tent, but the old Indian is so seriously hurt that he dies, and Pierre is left with the girl on his hands. A half-breed and an Indian appear at the camp. This half-breed, Simon, who was the husband of Anne Marie's sister, but who, through his brutality, has killed his wife, is in love with the girl, and tries to make Pierre give her up. This Pierre refuses to do, and the girl and he scheme to escape in the canoe. It seems impossible, and, finally, Anne Marie, whose injuries are very painful, endeavors to make Simon swear on the grave of her father that he will protect her and take her to the home of her cousin, Antoine. Simon promises, but refuses to swear. He insults Pierre, and a fight ensues, in which Pierre succeeds in felling the half-breed and, with the help of the girl, binds him. Anne Marie, after damaging Simon's canoe in such a way that it will take some hours to mend, helps Pierre and the Indian to pack their canoe, and she and Pierre start up the river, leaving the Indian to return and release Simon. Simon and the Indian follow as quickly as possible, but again Pierre conquers the half-breed, in a desperate hand-to-hand fight, and he and his companion are made to take a solemn oath to cease the chase. Anne Marie develops a high fever which promises to delay the two in camp for some time. An inventory of supplies shows Pierre that they have enough to last them for about four weeks.

CHAPTER VII.

The Form by the Fire.

IN the small hours of the night Pierre finally obtained some sound sleep that lasted until daylight. The rain had stopped, and the weather was cold, with a keen, frosty bite. Some water that he had left outside the tent in one of his cooking-pots was filmed over with ice. A brisk wind was blowing, and the tinted leaves were flying over the river and floating down upon the dark water. High overhead, from time to time, triangular flights of ducks were making their way to the southward.

Anne Marie seemed to be suffering decidedly less, but her breathing was still much oppressed. She smiled when Pierre, who felt more cheerful, assured her that she was ever so much better and would soon be able to travel.

His confidence was not assumed, for the brighter weather had dispelled the blues from which he had suffered the day before. He went about his preparations for breakfast with a vim, whistling and singing, and occasionally interrupted his work to throw a stick for Paddy to fetch.

He boiled some pike, and decided to catch more if they would only bite. There was a rocky place at the head of the little bay where it might be possible to get some *doré,* and there he placed several set lines baited with pieces of pike.

Anne Marie consented to drink some tea and eat a bit of bread, which she soaked in it. She was still very weak, but the fever was nearly gone; yet, whenever she moved, her respiration became very fast, and she was always glad to lie down again and keep still.

The dog, in his foraging about the camp, raised a hare, of which Pierre caught a glimpse before Paddy had fruitlessly chased and lost him in an adjoining swamp.

Rabbits were not to be despised, and Pierre took a roll of copper wire that was fastened to the small bundle of traps, and made some snares. If he could catch a few, they would make a welcome diversion in their diet.

The skins would also prove useful if they were detained long, for they were ill-provided with clothing for a winter journey.

The fish heads he had thrown away the day before had disappeared from the bank, and tiny tracks revealed the identity of the thieves. He could probably have caught one or two mink with deadfalls, but he decided it was not worth while.

He went off with his snares, and placed them in the little paths that ran through the raspberry-bushes and low shrubs near the shore. When he was through with this, he went to inspect his set lines, and was glad to pull out a couple of fat wall-eyes with gold-edged scales; the other baits had been stolen, possibly by chubs.

Thus the morning passed away, and the constantly recurring subject of food came up, for it was nearly midday. After lunch he idled away some time, speaking to the girl now and then, receiving nods for answers, as a rule, and attending to her wants assiduously.

It seemed strange that he could do so little for her, and that she never seemed to want anything unless he suggested it. He had opened the tent-flaps widely, so that she might look out, and, as he moved about, her eyes followed him, for she did not understand him yet.

Why did he take so much trouble about her? He had given up his voyage, and now was quietly biding his time, waiting for her to get well. If he had ordered her to get in the canoe, and had paddled off, she would have thought it perfectly natural.

She would have followed, somehow, over the portages. Wounded things had to drag themselves to places of safety or die, and she would have done likewise, so long as the breath of life clung to her body.

But this man said that she was not well enough—that it would make her suffer—and brought her food, and covered her at night with blankets. These things he did without appearing to think about them, and this day he whistled and sang as if there were no hard riddles in the world for men to solve.

When he started across the river to troll for pike, she followed him with her eyes so long as she could, and was glad to see him again whenever he passed in her line of vision on his way up and down the shore.

On his return with several fish, she was happy; and it seemed strange to her to feel so pleased at a man's home-coming. To her that sort of thing had so often meant the disgruntled return of the unsuccessful hunter, or the arrival of a famished one with skins to prepare, with clothing and moccasins to mend, for whom food had to be made ready, who first partook of it, and of the best thereof, often leaving scant pickings for the women and children.

It was good to see them when they brought plenty of food and pelts, and it was evil when they were empty-handed; but there was no deep pleasure in it, no expectation, nothing that could be translated into a desire for a mere presence.

Now that she felt that sensation, she did not understand it, and accepted it as one of the phases of an existence in which the unexpected ever occurs. She had seen women that had borne children, and had noted how, nearly at once, the instinct had awakened by which the mother and child became inseparable things.

All these things were not clearly defined in her mind. There had merely awakened in her a sense of possession such as the child feels for its doll, for even Indian girl babies have dolls, and play with them; and in them, as in others, the instinct of motherliness develops even before the capacity for love. This girl knew that one should be grateful for kindness, and her sentiment appeared to her as a manifestation of gratitude. She had so much to be thankful for that it did not surprise her that this feeling should take a new form.

When Pierre returned, she was very glad, though she scarcely showed it. Like all Indians, she was afraid of being

laughed at, and possessed a sentiment of dignity that could only melt away after longer acquaintance.

Her face was, therefore, nearly always impassive when he spoke to her.

He had several fish, and showed her one that weighed probably ten pounds.

"It isn't so bad," he said. "But I'm disappointed. Either there are not many of them or they are not biting well."

"Plenty pike," she answered, "but on the first of cold weather fish often bite badly."

He went off again to investigate his set lines, but found only a small *doré* and a big chub, which he kept for bait. After cleaning his fish, he went back to the tent, intending to cut some more firewood. The ax was very dull, and he began to sharpen it with a small file.

He was seated near the girl, in the widely opened tent, and suddenly she grasped his arm, and he saw that she was pointing at the opposite shore, perhaps half a mile up. Looking keenly, he finally caught sight of a large grayish animal, showing very indistinctly in the bushes among which it stood. The two watched it for some time, until it moved back into the woods and disappeared.

"Caribou, wasn't it?"

"Yes, ateck," answered the girl. "Big doe."

Pierre took the gun out of its cover, and felt in his pockets to see if he had a few cartridges to spare.

"I'm going to look." he said.

She watched him go off once more. He left the dog with her, for Paddy was of doubtful utility as a hunter of big game. The canoe went straight to the other shore, then gently up stream. The girl saw Pierre land near the place where they had seen the animal. He pulled the canoe up, and bent down, looking for tracks, and then waved his hand at her and disappeared in the woods.

It was then within an hour and a half of sundown, and she settled down to wait patiently. The time seemed long, as the sun kept on going lower and lower, and she began to wonder that he did not return.

Then, faintly, a long way off to the east, apparently among the distant hills beyond the river, she heard the booming of a shot, and then of a second one. They were very faint, for the smokeless powder made but little noise. In fact, an ear less well trained than hers would scarcely have noticed it.

Then came upon her a feeling of some anxiety, for he must be very far away, and the sun had set. He was only a *monsieur,* and he might get lost in the woods coming home. It would be dark before he could get back.

It was a constant subject of laughter among the guides, both Indians and *habitants,* this amazing ignorance of the people they took with them to fish and hunt. Some could not see a plain bear-track before them, and others could not follow a blazed trail without getting lost, while there were hardly any who could light a fire in the woods if there was the slightest bit of rain or wind.

They were strange people, with much money, most of whom could not speak French, and who went into raptures over a ouananiche such as the boys at Pointe Bleue sometimes caught with a hand-line in the early spring.

But this man was not so stupid as all that—he knew something of the woods. Perhaps, if he were lost, he would climb a tree to make out his bearings. She ought to make a big fire, so that he might see it from a high tree or from the top of one of the hills.

Painfully she dragged herself out of the tent. She had not realized how weak she was. Every effort cost her pain, and every breath she took stabbed her wounded side, yet she gritted her teeth and went on her hands and knees to the place where the embers were still smoldering.

There was a good deal of wood ready-cut, and she gathered the burning ends and fanned them with a piece of birch-bark. Little by little she added other bits and splinters and got a flame, upon which she placed the cut logs until she had a great bright fire.

But she realized that all she had would not last more than half an hour at this rate, and took the ax, which Pierre had left behind, and dragged herself to where he had felled some dead trees.

Here she had to rest for a long time before getting up on her feet. She gave a few good blows, and the chips flew in a workmanlike manner, but presently she felt faint, the ax dropped out of her

hands, a dimness came over her eyes, the world went around and around and she fell unconscious upon the mossy soil of the forest.

Paddy came to her and sniffed at her, put his paw upon her, and whined a few times. Then he sat by her and waited patiently, but as she did not move he repeated these maneuvers, and, as they proved unsuccessful, uttered a long, dismal howl.

In the meanwhile, Pierre had followed the tracks of a cow caribou. The animal was evidently making its way quietly toward the east. In wet and mossy places there was the quadruple mark of each hoof that he knew so well.

It was already getting late and he wondered whether he would be able to reach her before sundown; it was worth trying, however.

As venison, it was really better than moose, and the back fat was desirable, as his supply of pork and butter for frying was pretty low. At any rate, he would follow on a little farther, cautiously, and would then go back to camp and return the following morning and make a day of it.

In many of the wet places he noticed that the water had not yet filled the tracks. She was probably quite near. By morning she might have traveled very far. In some mossy places she had stopped for a moment to crop the lichens.

Suddenly, from a distance, to his right, he heard the call of a stag, and so near to him as to startle him came the hind's answer. There was a little clump of alders close to a brook, about sixty yards away, and from this emerged the cow, sniffing in the direction of the stag's call. Something frightened her, or she decided to make a dash toward the stag, for she started with a great leap.

At this moment the rifle rang out—and she fell. But she was up again in an instant, and Pierre shot once more as she disappeared among the trees.

Pierre then realized that the night was falling, and that he had hardly been able to see his sights. Still, it was certain that the first shot had hit her hard, probably somewhere about the right foreshoulder. The second was very doubtful.

It was getting dark so fast that he could hardly follow her track, but just as he began to despair of finding her, he saw his quarry lying upon one side—quite dead.

Hastily he bled it and gralloched it, and removed a hind leg to take back with him. But all this took some time, however much he hurried. He took birch-bark and split some sticks in which he inserted pieces of the bark, and planted them around the carcass.

He also placed a handkerchief over the animal and fastened it with a stone, to scare away the wild prowlers, and then began to consider the problem before him.

The weather was good enough and he might have lighted a fire and remained there until morning, but he was rather anxious about the girl. The idea suddenly arose in his mind that while he had left her the Carcajou, breaking his oath, might have come down and captured her.

The notion of such a possibility made inaction intolerable. He had taken the gun; she was left with no defense. But even if this had not happened, sick people were never so well in the evening. She needed food, a fire, tea, perhaps medicine.

Of course, she would not worry about him. She was an Indian and accustomed to waiting; but, after all, it would not be right to leave her there all night, with no care.

The great river was directly west of him, and he could certainly fetch it with his compass, though it would be a tough job through the tangled woods and swamps.

The caribou had led him through a hard country, yet she had unerringly found good going, but now it was out of the question to follow the back track in the dark.

He started hurriedly, but in a short time could no longer see his compass. After a while, he lit a match and looked at it. He had only about a dozen with him. They would not last very long if he looked at his compass often, and he must keep a few to light a fire with, in case he could not get out of the woods that night.

He walked on more slowly, bending every effort to keep his direction. He could not see the north star, for the sky

was cloudy, and after an interval he decided to light another match.

Before doing this, however, he made a torch of birch-bark and lighted it. It burned some time, during which he made progress.

He stopped often to consult the compass, but he soon got up to his knees in swamps and had to push through impenetrable thickets of alders and vines.

His torch went out, but he had seen, just before, the tops of a high clump of trees in the direction he wanted to follow. They were limned very black against the fainter darkness, and for some time he managed to keep them in sight.

Several times he fell, and once sank up to his shoulders in the black ooze of the swamp, but succeeded in pulling himself out. The chill of the night struck him and his teeth began to chatter.

Finally, a small crescent of light appeared in a rift of the clouds and he decided to climb a tree to see if he could get a glimpse of the river. A tall spruce was ascended with much difficulty, and once at the top he could see nothing, but as he rested for a moment before beginning his downward journey, he discerned, probably less than a mile away, a small flickering light. He kept on peering in that direction and the light shone steadily.

"It must be the camp," he said to himself.

The moon was showing more brightly. It would soon be quite high and it would help him to continue in the right direction.

Coming down from the tree he picked up the gun and the meat, and soon found somewhat better going. Lighting another torch, he found that he still had five matches. The air was still and cold and he shivered as he went on. Once he stopped, thinking that he had heard a strange sound, but decided that it must have been the hooting of an owl.

By this time, he must be getting pretty near the river and new courage came to him. Falling over dead trees and stumbling over rocks, tearing through tangles of alders and vines, he suddenly came out upon the shore of the longed-for river.

He stopped, delighted, and wondered whether he was above or below the place where he had left the canoe, but on looking up-stream he saw a flickering light upon the opposite shore.

He could see his way fairly well now, but stopped suddenly, for in the direction of the light, in the still cold air, arose a mournful howl, prolonged, increasing in intensity toward the finish.

"It's Paddy!" he exclaimed. "I hope there isn't anything wrong."

He stumbled along the shore, through brambles and berry bushes, fighting his way through alder clumps, now and then advancing over loose stones and along rocky ledges, and when he arrived opposite the light he gave a long, loud call.

But there was no other answer than another howl, this time followed by loud barking.

He finally reached the canoe and paddled back to camp, to be met on the shore by the excited Paddy, who would not stop barking and whining.

He hurried to the tent, and groped in the darkness, calling Anne Marie, but she was gone.

Paddy acted strangely, coming to him and running off. Following him, Pierre, a few yards away, nearly stumbled over the girl's body.

He lifted her in his arms and carried her back to the tent, where he lighted the precious candle.

"What is the matter, Anne Marie?" he exclaimed.

She was looking at him, and smiling faintly. The touch of this strange man seemed to have brought life back to her. She did not know how long she had lain senseless.

"I went to cut wood for the fire," she said.

"That was a stupid thing to do," he answered, somewhat angrily. "Now you've made yourself worse again."

"Yes, stupid thing," she answered patiently, with some sadness in her voice.

"I killed the caribou cow," he informed her.

"Ah, good."

"I had a hard time coming back, but I saw the light."

"Yes, I made a big fire," she answered.

And Pierre's conscience smote him, for at that moment he realized that she had suffered much to give him help.

"I'm sorry I said that just now," he said meekly, picking up her hand and pressing it at the same time.

"I am very glad you have returned safely," she answered. "It is good to see you."

He went to work to put on dry clothing and to brew some hot tea, while the girl gazed at his face lighted by the fire's glowing. A deep contentment in her heart, a feeling of peace and happiness that was a very new element in her life, made this evening seem a very radiant one to her.

Pierre, in some manner that he was hardly conscious of, felt attracted by this little savage girl's evident devotion. It was a pleasant thing. Her gratitude and admiration were plain enough. Taciturn and quiet though she might be, there was now often in her eyes a light that shed a brightness over him, that requited him for the little he was doing for her, that gave him that wonderful and charming sensation that one is becoming necessary to some one's comfort and happiness.

It was within his inner self a mere slight feeling, one as yet shapeless and unformed, the realization of which would have given him great surprise.

He basked in the contentment that was wholly due to his successful hunt, to the reaching of camp after weary toil, to the hot food before him, to the welcome of the dog and the girl, and did not know that, either because pity is akin to love or merely because her little heart was going out to him, his own was being drawn toward her, as it had long been drawn toward the glory of her land, and the beauty of her lakes and mountains and the freedom of her life.

CHAPTER VIII.

The Journey Is Resumed.

NEXT morning Anne Marie was still very weak, and breathed with difficulty; but the pain had left her side, and she felt pretty well as long as she remained still.

Pierre attended to her needs as usual, and after breakfast, for which he fried a good slice of caribou meat, he went to look at his rabbit snares.

He had only caught two, a rather scanty return for his pains. He cleaned them quickly and stretched the skins to dry. Then he placed near the girl everything she might need during his absence, and cautioned her to remain quiet.

Taking his tump-line and rifle, he said that he was going back to get the rest of the meat.

Anne Marie assented in silence, and getting in the canoe he paddled over the river to the place whence he had started on his hunt.

As often happened to him in the woods, he began to think of the contrast there was between the life of the wilderness and that which pulsates in great cities.

On their outskirts there always seemed to be a kind of leprosy; tumble-down shanties, anemic vegetation, sordid ways of making a living, all showing like an exfoliation due to decay within. Going into the huddle of people, one found poverty, crime, disease, and, greater than all these, hunger in places adjoining plenty of food, cold where fuel was abundant, tears next to laughter.

Out here, a hungry Indian would nearly starve before disturbing a cache. he was as well provided as any that had food, for they would share with him.

Out here, the filth of the civilized world was far away, the air had been unbreathed of man, the water unpolluted, the land free, the fuel belonged to all, the fishes and the beasts to whoever could capture them.

What did it matter that it was a land of cold and hunger? It was also a land of freedom, full of riches for generations to come, and the people that dwelt in it were strong and self-reliant. They could have laughter and good appetite and sound sleep. They could live long, they could have affections, they might know love.

His thoughts went back to the camp, where he had left Ou-memeou. Had he been unrestrained by his ties to another world, who knows but that he would have sought her for a mate. She was very beautiful, but he thought most of her courage, of the wild spirits she showed, of her instinctive modesty, of the deference she paid him as a superior being.

Yet was she inferior? What leaven

was there in him that had raised him above her? It was but a matter of absurd conventionality, and this was but a fetter, a thong that bound him, his right to his own life.

Aye, Ou-memeou could be a fitting mate to a real man, a mother of strong children.

But he shook off these thoughts, smiling vaguely at himself, and began to pay attention to the job before him.

He had to proceed slowly, following his own tracks and those of the caribou, but there were many places where neither seemed very distinct, and he had to look very carefully.

Finally, he reached the spot, and near it observed some bear tracks. The animal had not touched the carcass, however, evidently fearing the indications of man's presence Pierre had left behind him.

Pierre went to work to cut up the venison. He took the other hind leg after divesting it of the bone, and all the meat from the saddle and a good deal from the foreshoulders. With some fat, the liver and the tongue, he wrapped it all up in the hide, tied it up into a pack and slung it over his forehead.

It was a big load, but he returned quickly, having blazed some of the trees. He deposited it in the canoe and covered it thickly with boughs against the attacks of meat flies. Another trip yielded about half a load more. It was noon before he was through and he was greatly pleased with himself.

He sat smoking his pipe while resting a moment. He became conscious that Paddy, on the other bank, had detected his presence and was barking at him, running up and down the shore.

A good shove sent the canoe into the stream, and it seemed to him as if his arms had grown stronger as he wielded the paddle, as if his stature had increased, as if there was something in him that made him a bit more of a man.

He landed, petted the dog, spoke cheerily to the girl, and took a huge delight in cooking a good lunch. He boiled the caribou tongue and insisted upon the girl eating it. It was a tidbit, just the thing for an invalid.

She looked surprised and refused it at first, but as he insisted she complied with his wishes. He was incomprehensible. It was not the Indian way for a man to give the best pieces to the women.

He ate a mighty lunch, and Paddy fed so well that he slept all the remainder of the afternoon, during which his master worked away at his meat, cutting it into strips and smoking it, puffing away at his pipe in the meanwhile in great contentment. He had hunted, made a good shot, worked hard and he was busy. All this was enough to make a man mightily happy.

"We won't go hungry now, Anne Marie," he said, "even if we are kept here some time. But we'll be able to start soon, and I suppose in the end we'll throw a lot of the stuff away."

She nodded with a smile, and somehow he caught himself wishing that she were not so silent. He would have enjoyed jests and an animated talk; but then he realized that she was ill, that she belonged to a race that is taciturn before strangers, that she was a wild thing that was not yet tamed, and he felt a desire to talk to her, to teach her something—he knew not what—in order to attune her to his own feelings.

On the next day, during a period of idleness, he wondered why the girl continued to breathe so fast while apparently seeming to have no pain, and it was only then that he remembered that people with pleurisy sometimes got a lot of fluid in their chests, and that it interfered with respiration at times, and that it often had to be taken out.

When this idea came in his head, he began to feel much concern. Why had he studied medicine such a short time only? In a few moments he had thought over the matter carefully and recollected that the chest full of water would sound differently, when struck with the fingers, than a healthy lung. It is just like a difference between hitting a full or an empty barrel.

"Look here, Anne Marie," he said, "I want to examine your chest to see how you are getting on."

She instinctively drew the blanket more closely around her, and he felt provoked.

"Don't be a fool, girl," he said.

His tone was not as gruff as his words, though, and as he drew the blanket down

she closed her lips tightly and allowed him to have his way.

She was still wearing his spare coat, and this he removed, as gently as possible, and divesting her of a few more things partly bared her chest. He felt some surprise when he noticed how white the skin was compared with her face and hands. He had not paid attention to it before.

The few adhesive straps he had placed on her chest were rather wrinkled up and loose, and appeared capable of doing little good, so he pulled them off.

She first time he tapped with his fingers she gave evidence of pain and he chided himself for a fool. He ought to have known better than to do that just over the place where the ribs were broken. A little farther back, however, his striking produced a dull sound. At a corresponding place on the other side of the chest the result he obtained was entirely different.

"That's it," he decided. Here was the deuce to pay. As far as he knew, those cases, perhaps, never got well unless that fluid was removed, and of course he had nothing to do it with, and did not know very well how it was done. But after all, in some instances, they must surely get well without that. It could hardly be necessary in all, at least he hoped it was not.

After he was through he replaced her clothing and sat there beside her, deeply cogitating, until he noticed that her eyes were persistently fixed upon him questioningly.

"You want to know, Anne Marie. Well, you'll be well soon—then we'll start away," he declared.

He was assuming a confidence he was far from possessing, but she seemed pleased.

"The poor little thing takes everything I say as gospel truth," he commented to himself. Somehow it made him feel very kindly toward her. He experienced a sensation somewhat similar to the one he recollected having felt when Paddy was a pup, and had begun to follow him about in preference to other men.

He remained seated by her, idly cutting up some plug tobacco.

"Yes, it's all right, Anne Marie. We'll soon travel on. At first you will not be able to paddle, but after a few days you can help. I'll have to work going over the carries with all that stuff to pack across, but it's a good thing to have plenty."

Unconsciously, just as he would have petted the dog, he stroked the girl's head, but never saw the wonderful light that began to burn in her great dark eyes.

Then he amused himself for some time by teaching her some English words. She knew a few already, and, a docile pupil, she repeated various sentences after him. "Good morning. Are you ongry. I ope you ave slept vell. De dog as e-ten de mit."

"No, not mit—meat—Anne Marie."

She hung upon his lips, so anxious was she to please, and repeated the difficult word until her teacher expressed himself as thoroughly satisfied.

This was really quite interesting. She was intelligent. It was like teaching Paddy new tricks. She was quick to learn, and moreover, she did not forget. In the loneliness of the great woods she was becoming a companion.

She was no longer the poor child he had merely wished to help because she was a living, suffering thing. Gradually she was losing her reticence, and from her he learned the legend of men fishes that inhabited the great waters, and of whom the last had been shot within the memory of the older Indians, it seemed.

She told him why the skulls of animals were hung upon peeled saplings near the camping places—to propitiate the spirits of the trapped fur bearers; and told him tales of the folk-lore of Montagnais and Algonquins. He had to stop her because it seemed to tire her a good deal to talk.

"Thank you very much, Anne Marie," he said. "It is all very interesting, and you must tell me more about these things another time, when you are stronger."

Unconsciously again he patted her hand, smiling, and rose to make supper ready. He brought her food, as usual, and was very attentive to all her needs, and the Indian girl, having found a new life, was lulled and rocked in it, experiencing a strange, quiet happiness she could not understand, but accepted with a gratitude ever growing greater and more intense.

Pierre worked hard at his caribou meat. There was plenty of time and he cut his strips very thin and smoked them with great care. They were hanging all about the camp over many sticks resting in the crotches of upright poles. There was no room in his packs for all this extra food, and he made ingenious bundles with birch-bark.

With these preparations and the fishing, which daily grew poorer, besides the capture of occasional rabbits in his snares, which he had set on the other side of the river in a swampy place where they were fairly numerous, about ten days went by.

He had scraped the caribou hide carefully and rubbed it with brains and wood ashes, hoping it might be of some service. The weather grew colder day by day. The middle of October was approaching, and on two mornings there had been sharp frosts.

The deciduous trees were nearly bare and the winds blew keenly. Nature seemed to be preparing for the coming of an early winter. The little stove had been rigged up within the tent, and in the evening, before going to sleep, its heat was grateful. In the morning he made it roar, just for the pleasure of it, and did most of his cooking upon it.

Annie Marie was getting better. Her breathing was becoming quite easy, and, on sunny days, during the afternoon, she sat under a tree, where she spent hours gazing at the placid stretch of river, and following with her eyes the tall young man who, with his pipe everlastingly going, was fussing with some of the preparations for the trip.

One morning, as he awoke rather late, he was surprised to find her up. She had lighted the fire in the little stove and was sitting by it. With a wonderfully coarse needle and some thread she was mending a hole in one of his heavy woolen socks.

"Why, Anne Marie," he exclaimed, "what are you doing?"

She turned to him with a smile.

"I could not lie down any more," she replied. "I am better now. Time to get ready for a start."

"But you are not strong enough yet," he objected.

"I can sit in the canoe. No work. We'll travel on easily. Get that much nearer to Lake St. John."

He reflected for a moment and thought that it was a wise idea. If she could sit in a canoe it would do her no harm. At any rate, they could go on to the head of the next portage and camp there. If she was not strong enough to walk across, they could stay there for a day or two.

"Do you think we could start today?" he asked eagerly.

"Yes, we'll make ready now."

With a joyful feeling he went to work, whistling and singing. His energy seemed to propagate itself to Paddy, who barked and scampered with delight when he saw the tent being pulled down.

Everything was ready in less than two hours, including the time he took to go across the river to collect his snares, which he would not leave behind. He found four rabbits, which he brought back in triumph. He was really very tired of rabbit, but Anne Marie enjoyed them, and so did Paddy. There were enough skins to make a rough blanket.

The canoe was rather heavily loaded when the time came to start. He carefully led Anne Marie down to the shore. She was very weak, and at first it seemed as if her legs could only carry her a very short way.

She seemed surprised to realize it, and he assured her that this would soon wear away. He got her comfortably ensconced in the bow of the canoe, and with a last look at the place they pushed off.

The journey was on again. It was a fine frosty morning; the air was clear and bright and a fair wind blew down the river. Pierre paddled strongly and with each sweep of the paddle the little craft, carried along by the current, went a good distance.

Again they were watching the shores that went by, and noted the indications of life along the river. There were ducks, at times, rising before them a long way ahead. But most of the birds, never very numerous in that region, had already departed. A couple of loons were swimming about in one broad lakelike expanse of the river, and farther on a lone gull gave a rasping cry and sailed away from the top of a great rock. Then the river narrowed down again and became quite rapid.

"You remember this portage?" asked Anne Marie.

"I suppose so—why?"

"The water is very rapid just before reaching the landing-place. It takes two to fetch it safely. It would be easy to be carried over the falls. There is a place higher up where they land, at high water. We must stop there."

"Just as you say, Anne Marie."

It was nearly noon when they landed, and Pierre helped the girl out of the canoe. She was pleased to find that she was a little more steady on her feet than when they had started. Yet she was very glad to lie down with her back propped with the bundle of blankets, while Pierre started a fire and began the never-ending boiling of the kettle.

He made a strong stew of caribou meat, with a little rice. With bread and tea, this made a fine meal, and Anne Marie ate with better appetite than she had manifested for a long time.

"Let me see, how long is this portage?" he inquired between mouthfuls.

It was ever a surprise to her to find that he never remembered exactly the places over which he had already passed. He recognized everything, but was always a bit hazy until he reached them. He was deficient in the training which to her was second nature, and she could hardly understand that this wonderful man should be lacking in any faculty. But then he was something out of the common, that could not be judged by the standards applicable to her people.

"It is not far," she replied. "Few hundred paces. But there is a hard hill to get down. Don't try to carry too much."

But he lit his pipe, and, in the pride of his strength, piled up packs on his back until he carried about a hundred and fifty pounds. He followed the path which generations of Indians had worn over the portage and soon came to a steep climb that made him stop for a rest.

Then again he went on and reached a place where the way led down a steep and crumbling side hill, covered with scanty herbage everywhere but in the path, where the bare sand showed. He remembered that he had puffed hard on his upward journey when coming up that place.

Slowly and carefully he made his way down. The sand was loose and gave an insecure footing, and whenever he slipped a few inches his pack would thump down hard and give his neck a wrench. He finally reached the bottom and placed his load upon a flat rock, and rested a moment before going back. Two more journeys consumed nearly an hour, leaving nothing more to carry but the blankets and tent, with the rifle and a small bag of provisions.

"What do you think, Anne Marie? Do you want to try it?"

She arose briskly, and he took the remaining bundles. Placing one arm around her waist he started slowly. They progressed steadily while they were on fairly level ground, and Pierre saw that it gave her pleasure to feel that she was getting on so well. After reaching the hill, however, she began to breathe hard, and soon stopped.

"It's too much for you, is it?" he asked.

With scanty breath she replied that she would be better in a minute, and they sat down for a moment. She then rose again, her teeth tightly clenched, but soon her mouth was open wide in an effort to breathe.

"I'll carry you," he said.

He bent down and with his right arm encircled her knees.

"Bend down," he directed her, "and put your arms around my neck."

He did this so quickly that she had no time to protest. She did as she was bidden and he lifted her easily, like a child; she clinging with her left arm to his neck.

There were some vines and saplings along the upward path, and with his left hand he grasped them during his climb, putting down each foot carefully.

Before he reached the top he was blowing hard. The last few steps were tough, but he reached the summit and put her down carefully.

"You stay here and rest," he told her, "until I bring up the rest of the things."

"You are tired," she said.

"It's nothing," he replied cheerfully. "I had a good deal harder time carrying the canoe."

This was not strictly true, but the girl smiled and he went after the remaining possessions and was back in a few minutes.

She asserted her readiness to go on. There was a fairly level place on top of the hill for about fifty yards, and she made it easily, but when they came to the steep descent Pierre felt uncertain.

"I'm afraid I'd better not try to carry you down there," he said, fearing a slip.

He went before her, she leaning upon his broad shoulders. They had to stop several times. Once when her feet slipped in the loose sand an expression of pain came over her face, but he did not see it.

They finally reached the bottom. The girl was looking pale, but was elated at her success.

"Perhaps we have done enough for to-day," he suggested.

"No, bad place to camp here," she replied. "Only five miles to the next portage."

He looked at his watch; it was only three o'clock, and the next carry could easily be made.

"Is it a good camping place?" he asked.

"Yes, good at both ends."

He loaded the canoe again, but in order to bring the girl down he had to lift her to the shelf of rock upon which he stood. Paddy jumped in and they started.

He turned his head back, as the swift water was carrying them away, the better to see the beautiful falls amid the spray and spume of which they had started. The brown water roared down full fifty feet in one grand leap, in a furious mass, between jagged rocky cliffs, the tops of which bore a few stunted, twisted, wild-looking trees.

The girl could, like all her people, appreciate the beauty of nature, but before his worship of it this feeling was awakened in her to greater depths.

"It is beautiful," she murmured.

This time he was the one to answer with a nod, for it was too grand for words, but he felt glad that she shared his admiration.

The falls disappeared behind them, as the river pursued its sinuous course, and Pierre, who was getting slightly tired, paddled easily. There was plenty of time in which to reach the next portage and make camp before dark.

Anne Marie was thinking. She had known an old Indian who had traveled many hundred miles with his sick wife to reach a doctor and consult him about the old woman, whom he had carried over every portage in a rough chair suspended from his tump-line. But she was a cripple, and it was the only way.

In her case, things were different. If the young man had allowed her to, she would have managed it somehow. But he had not permitted it. He had bent down and lifted her like a child, masterfully, in a way that could not be resisted, and it had been a strange and pleasant sensation.

And now, to the child of the forests, the river was beginning to sing a more beautiful song, the spirits of living things and of dead ones were smiling upon her, the foam and the roar of the great waterfalls spoke with an eloquence she had never conceived possible. She had been as a child in those strong arms, and their possessor assumed, in her eyes, some of the attributes of the great things that were to be worshiped — the Manedo of her fathers, the God of the present generation.

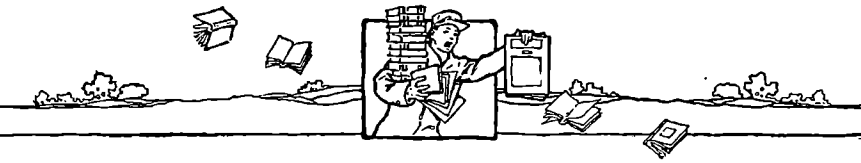
Whenever Pierre chanced to look at her he found that her eyes were fastened upon him, and each time the long lashes fell and concealed them. She had never before spoken to a *monsieur*—one of the breed of strange people who came from the hotel to visit the reservation at Pointe Bleue, who looked upon the Indians as curious beings and then disappeared to make room for others.

They were surely not like this one, who was singing, at this very moment, "A la Claire Fontaine," with a voice that was as the music in the church.

There could not be any others like him. They always took guides, and she could not understand why he had gone into the woods all alone. She did not seek to fathom the mystery of how *le bon Dieu* had led him in her path, when she was drowning, and had kept him there, making her present life so happy, notwithstanding the sorrows that had gone before.

At times her lips formulated a prayer that she hoped would reach high up in the heavens, for the welfare of the young man who was singing blithely as they approached the portage.

(To be continued.)



The Railroad Man's Brain Teasers.

Puzzling Problems that Promote Patience and Propagate a Propensity for Practical Proportion.

MR. O. M'H. SHUMAN, writing from Mohall, North Dakota, sends the following teaser:

Place a pair of truck-wheels on the rails, fasten and wind one end of a cable around the center of the axle, with loose end drawing from the under side of the axle. Couple a locomotive to the cable and give the engineer the signal to go ahead.

Now, which way will the truck-wheels revolve—toward the engine, away from the engine, or will they skid on the rails?

From T. J. Scanlin, Boone, Iowa, we have received the second teaser of this month's supply. Here it is:

Three towns, A, B, and C, are situated along a double railway line. A freight-train leaves A and stops 7 minutes at B. Two minutes after leaving B, it meets an express-train which left C when it was 28 miles on the other side of B. The express travels twice as fast as the freight, and runs from C to B in 1½ hours. The express also runs from B to A, and, returning, arrives at C 3 minutes after the freight-train. What is the distance between A and B, and B and C? What is their rates?

ANSWERS TO JUNE PUZZLES.

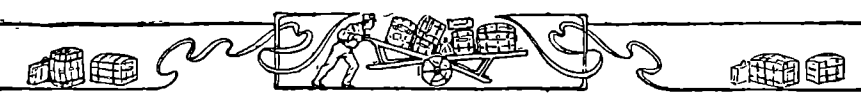
Mr. Niles Searls's puzzle: Let "a" equal the length of train and "x" the distance that the brakeman traveled to the rear before he met the rear end of train. Then "a—x" will equal the distance the train was traveling while brakeman traveled distance "x." As all speeds are constant, we have the proportion as follows:

The distance "x" traveled by the brakeman to the rear, is to the distance "a—x" traveled by the train in the same time, as the total distance traveled by the brakeman, 2x plus a, is to the total distance traveled by the train, a.

By proportion this gives: x : a—x : : 2 x plus a : a. From this we can get the value of "x" and find it to be .7071a.

Substituting one mile for the "a," and the value of "x," as determined in the expression 2 x plus a, we have a total of 2 miles and 2,186.9 feet.

Mr. H. R. Middlebrook's puzzle: Six inches.



The Sunny Side of the Track.

What the Busy Joke-Smiths of Our Esteemed Contemporaries Have Turned Out Lately in the Hope of Making Us Laugh.

NEEDED A FEW MORE.

C. BENJ. CONDON, general agent of the Hawley lines, and J. R. Holcomb, general agent of the Kansas City, Mexico and the Orient, recently journeyed to Oroville in an effort to wrest from the Western Pacific large freight contracts. Adjoining the office of the hotel is a fire-house—a place where liquids can be procured—and after the long and tedious journey from this city they adjourned to the fire-house.

Holcomb wandered around the spacious room and let his eyes wander to the walls, where he spied the notice:

"We will pay $5 for 1909 Lincoln pennies."

"Did you see this, Higgins?" he asked.

"No. What?"

"Cast your eyes at the sign on the wall."

Higgins did so, and then hurriedly opened his suit-case and, throwing his wardrobe about the room, soiling the evening dress shirts, dug deep into the portmanteau.

"What are you looking for?" asked C. Benj. Condon.

"Why, I have one of them in here," was the reply.

After a thorough search he found a Lincoln penny dated 1909. and presented it to the man behind the counter.

"Does that sign go?" he asked the man.

"Sure," was the reply.

"Well, then, there you are," shoving the coin across the hardwood.

"That's all right," said the man; "but you'll have to get 1908 more of them."—*San Francisco Call.*

HE HELPED.

THE brakeman was a novice, and there was a very steep grade to mount. The engineer always had more or less trouble to get up this grade, but this time he came near sticking. Eventually, however, he reached the top.

At the station that crossed the top, looking out of his cab, the engineer saw the new brakeman and said, with a sigh of relief:

"I tell you what, we had a job to get up there, didn't we?"

"We certainly did," said the new brakeman, "and if I hadn't put the brake on we'd have slipped back."—*Washington Star.*

MAKING IT CLEAR.

"I BEG your pardon, waiter," said a traveler in a railway restaurant, "did you say that I had twenty minutes to wait or that it was twenty minutes to eight?"

"I said naythur," answered the attendant. "I said yez had twenty minutes to ate, an' that's all yez had. Yer train's gone now!"—*Iowa Times.*

STREET CAR AMENITIES.

"TAKE my seat, madam."

"I thank you, sir, but I get off here, too."—*Chicago Tribune.*

TO PREVENT ACCIDENTS.

A RAILWAY official has waxed sarcastic as the result of the restrictions imposed by municipal ordinances upon railway traffic in Ohio towns and proposes the following rules:

"When a train is approaching a team the engineer must stop the train and cover the engine with a tarpaulin painted to correspond with the scenery.

"In case a horse gets scared at an engine, notwithstanding the scenic tarpaulin, the engineer will take the engine apart as rapidly as possible and conceal the parts on the river bank.

"On approaching a curve where he cannot command a view of the track ahead, the engineer must stop the train, blow the whistle,

ring the bell, fire a revolver, and send up three bombs at regular intervals of five minutes.

"In case a train comes up behind a pedestrian he shall affect deafness until the engineer calls him a hard name.

"All members of the police force shall give up Sunday to chasing trains.

"When a train approaches a crossing where the tracks are dusty, the engineer must slow down to one mile an hour and lay the dust with a hand-sprinkler."—*Exchange.*

AN OLD ONE BUT STILL GOOD.

A WOMAN on the train entering Grand Rapids asked the conductor how long the cars stopped at the Union Station.

He replied: "Madam, we stop just four minutes, from two to two, to two two."

The woman turned to her companion and said: "I wonder if he thinks he's the whistle on the engine?"—*Exchange.*

A DELICATE HINT.

TWO very cadaverous tramps looked in at the window of a railway station where an operator sat at his key.

"Say, pardner," one of them said in a very husky voice, "report a couple of empties goin' East."—*Harper's Weekly.*

KEEPING THEM NEAT.

"YOU know, Katie," said the proprietor of the railroad-station restaurant, "there is a great deal in having your pumpkin-pies look attractive."

"Yes, sir, I know it," replied the girl, "I have done everything I could. I have dusted off these pumpkin-pies every morning for the last eight days."—*Yonkers Statesman.*

FRENZIED FINANCE.

A MAN approached the window and asked for a ticket to Kansas City inquiring the price.

"Two twenty-five," said the agent.

The man dug down into a well-worn pocketbook and fished out a bill. It was a bank-note for two dollars. It was also all the money he had.

"How soon does this train go?" he inquired.

"In fifteen minutes," replied the agent.

The man hurried away. Soon he was back with three silver dollars, with which he bought a ticket.

"Pardon my curiosity," said the ticket-seller, "but how did you get that money? It isn't a loan, for I see you have disposed of the two-dollar bill."

"That's all right," said the man. "No, I didn't borrow. I went to a pawnshop and soaked the bill for a dollar and a half. Then as I started back here I met an old acquaintance, to whom I sold the pawn ticket for a dollar and a half. I then had three dollars and he has the pawn ticket for which the two-dollar bill stands as security."—*Kansas City Journal.*

COULD HAVE BEEN AVOIDED.

"GENTLEMEN of the jury," erupted the attorney for the plaintiff, addressing the twelve Arkansas peers who were sitting in judgment and on their respective shoulder-blades, in a damage suit against a grasping corporation for killing a cow.

"If the train had been running as slow as it should have been ran, if the bell had been rung as it ort to have been rang, or the whistle had been blown as it should have been blew, none of which was did, the cow would not have been injured when she was killed!"—*Santa Fe Employees' Magazine.*

A LONG EXAMINATION.

A RAILROAD doctor is telling a tale on one of his colleagues. There had been a hand-car accident, and three men were hurt. By the time Doc Alberts had two of them fixed up, he was tired, especially as he had been on "emergency work" for fourteen hours, and the weather was hot.

He began on Dennis Twohy. Dennis seemed just bruised, and sore all over; his chest hurt him, and the doctor listened carefully to his respiration. It seemed all right.

"Breathe deeply, Dennis, and count just one—two—three—and so on," ordered the weary doctor. The next he heard was Dennis still faithfully counting, "sivin thousan' an' wan, sivin thousan' an' two, sivin thousan'—"

Dr. Alberts said blandly, "Very good, very good, indeed. That will do."—*Santa Fe Employees' Magazine.*

ON THE EDITORIAL CARPET.

Here We Listen to the Hog Head, the Fireman, the Con., the Shack, the Nite Opr., and All the Other Boys.

OUR main line has been straightened—curves have been cut off and grades lowered—and we are going to run the August train on a thirty-miles-an-hour faster schedule. Perhaps you belong to the old order of venerable, conservative, and capable railroad men who have a well-founded prejudice against such fast going, but we have so much steam bubbling in our domes and popping out of our safety-valves in the August number that we are going to try for a record.

At any rate, we have got such a fine batch of new equipment that we cannot possibly help breaking every speed record that we have set up so laboriously in the past four years.

In the matter of fiction, we are running a regular hummer by our old friend, Emmet F. Harte, in which he swings us over the Valhalla division with our old pals Honk and Horace, with the high-keyed laughter whistle tied down and shrieking.

Robert Fulkerson Hoffman will be aboard with one of the most powerfully dramatic stories he has ever written. Mr. Hoffman is the keenest student of human nature as exhibited in the railroad man that we have ever known, and in this story he brings all his technical knowledge, both of the railroad and of story writing, into play.

Another old and tried friend, J. R. Stafford, will be among this galaxy of star engineers, and altogether we expect our fiction to haul the biggest party of readers that ever bought a ten-cent ticket on our line.

As a running mate for this crack fiction flier, we have got together a string of the best special articles we have ever coupled onto. There will be a story of Congressmen who have risen from the ranks of railroad men, that every ambitious railroad man ought to read for encouragement. There will be the first article of an entirely new series by Walter Gardner Seaver. Our old readers will need no introduction to Mr. Seaver. Some time ago he gave us some of the best yarns of actual railroad life that we could couple onto. He is a railroad man of tremendous experience, and the tales he tells bear all the shopmarks of skilled, veteran labor.

Another story that we expect to make a big hit is by Arno Dosch, describing how a modern locomotive plant is run. It would seem to be an impossible feat for any plant to turn out an order of say, ninety locomotives to be delivered in sixty days, especially when one considers the widely different specifications to which various roads demand that their engines be built. But this is a feat which often has to be accomplished—or at least the equal of it, and in this article by Mr. Dosch you will learn how it is done.

Besides these there will be our usual friends, the observant J. E. Smith, who will tell more of the experiences of Schwartz in his efforts to purchase land from the farmers for the right-of-way of his company, and Robert H. Rogers, explaining to men who aspire to the manifold duties of the superintendent of motive power.

We shall also have a story of the Pinkertons, and an incident in the run of the first Black Diamond Express that will make a moving picture of speed look like a broken-down freight-car on the rip track. And, as usual, there are lots of things that we are not going to tell you about because we like to have a little "on you" boys in the way of eager anticipation.

Board's down for August!

MASTER MECHANICS MEET.

THE annual convention of the American Railway Master Mechanics' Association will be held June 15 to 22 at Atlantic City, New Jersey. In this connection it is recalled that this influential body is now close to the half-century mark in a career of usefulness practically incalculable. Starting in 1868, with six members, it has now nearly one thousand representatives from every railroad in the United States, Canada, and many foreign countries.

It is impossible to review in detail the work which has been accomplished in the history of this body. Unique in its devotion to the locomotive and its problems alone, it has investigated every conceivable subject connected with its design, maintenance, and operation, developing, criticising, and dis-

cussing it as it progressed from the diminutive sixteen-inch eight-wheel engine of 1860 to the magnificent articulated compounds of the present.

That this great development has been singularly immune from widespread mistakes is due largely to these annual conventions and to the *personnel* of the association. Its membership is limited to those who have attained to the grade of master mechanic—men logically qualified to discuss the important papers which are read during the session, and this free interchange of ideas has resulted in securing the very best in design and shop practises.

It has effectually safeguarded against the repetition of costly mistakes, and this feature alone has no doubt saved millions which would have been fruitlessly expended.

That the value of the conventions is fully appreciated by railroad management everywhere is evinced by the encouragement which they extend to their master mechanics to attend them. It is a judicious investment because these master mechanics manage the largest collection of factories in the world devoted to one substantially uniform product—the repairing of locomotives.

Although it may challenge belief, this particular item alone costs the railroads over eighty million dollars every year. To keep this tremendous expenditure down is one of the great problems which the convention must solve for the general good.

Many of the master mechanics will present their own views in the discussions, while others will be content to follow without comment, but whether speakers or listeners, they will return home with the renewed energy and interest in their work which always results from communication with other workers in the same field, and with their opinions modified, new ideas conceived, and their experience broadened.

"CASEY JONES."

WE are able to give you the words of the song "Casey Jones," this month, in response to your many requests for this song. We wish it were in our power to furnish the music also, but the editor will gladly sing it to any railroad man who will call at this office during the editor's idle hours—between 1 and 8.30 A.M.

CASEY JONES.

BY T. LAWRENCE SEIBERT.

(*Copyrighted, 1909, by Newton and Seibert, Los Angeles California.*)

COME all you rounders if you want to hear
A story about a brave engineer.
Casey Jones was the rounder's name,
On a six, eight-wheeler, boys, he won his fame.
The caller called Casey at half past four—
Kissed his wife at the station door,
Mounted to the cabin with his orders in his hand,
And he took his farewell trip to that promised land.

CHORUS.

Casey Jones mounted to the cabin,
Casey Jones with his orders in his hand,
Casey Jones mounted to the cabin,
And he took his farewell trip to that promised land.

Put in your water, and shovel in your coal,
Put your head out the window, watch them drivers roll.
I'll run her till she leaves the rail,
'Cause I'm eight hours late with that Western mail.
He looked at his watch, and his watch was slow,
He looked at the water and the water was low;
He turned to the fireman, and he said:
"We're going to reach Frisco, but we'll all be dead."

CHORUS.

Casey Jones going to reach Frisco,
Casey Jones, but we'll all be dead.
Casey Jones going to reach Frisco;
We're going to reach 'Frisco, but we'll all be dead.

Casey pulled up that Reno hill,
He tooted for the crossing with an awful shrill;
The switchmen knew by the engine's moans,
That the man at the throttle was Casey Jones.
He pulled up within two miles of the place,
Number Four staring him right in the face.
He turned to the fireman, said, "Boy, you'd better jump,
'Cause there's two locomotives that's a going to bump."

CHORUS.

Casey Jones, two locomotives,
Casey Jones, that's a going to bump.
Casey Jones, two locomotives,
There's two locomotives that's a going to bump.

Casey Jones said just before he died:
"There's two more roads that I'd like to ride."
Fireman said, "What could that be?"
"The Southern Pacific and the Santa Fe."
Mrs. Jones sat on her bed a sighing,
Just received a message that Casey was dying,

Said, "Go to bed, children, and hush your crying,
"'Cause you got another papa on the Salt Lake Line."

CHORUS.

Casey Jones! got another papa,
Mrs. Casey Jones on that Salt Lake Line.
Mrs. Casey Jones got another papa,
And you've got another papa on that Salt Lake Line

THE STEAM ENGINE.

WE have had a great deal to say in recent issues about locomotive practise as it is commonly known, and we will have a good deal more to say on the subject in the future. In August we will publish an article on filling large locomotive orders, by Arno Dosch, and in September we will publish "Has the Locomotive Come to Stay?" by Robert H. Rogers. Other papers of equal importance and interest will follow.

Many of our readers have written us asking if we have not laid too much stress on the possibility of the locomotive holding its place in American railways. There seems to be a general opinion that electricity is destined to supersede the steam-engine. We are sincerely of the belief that it is a long way from becoming the dominant railroad power, and we cannot be led to believe that it will ever wholly take the place of the steam engine any more than the monorail will replace the double-rail track.

Our attention is attracted by an editorial on this particular subject in a recent issue of *The Railway and Engineering Review*. We give it herewith:

Not more than five or six years ago, the average layman felt reasonably certain that continued development of the steam locomotive would be both impracticable and unprofitable, and that electrification as a substitute motive-power in all classes of service was imminent.

Electrification has been found justifiable under a considerable number of conditions, but one at least, which had come to be regarded as its particular field, has in a very great measure been preempted almost before the electric locomotive was given a trial, that is, that branch of the service in which the Mallet compound locomotive is finding its greatest usefulness.

The opinion is almost universal at the present time, that present-day terminal and suburban service can be efficient and up-to-date only as it employs electricity as the propelling agent, and this idea, at least as it regards suburban traffic, the writer believes is about on a par with the notion held some few years ago, as above referred to. In contemplating suburban service, as it is provided nowadays with steam locomotives, one cannot help being impressed with the general second-handedness of the equipment that is assigned to this department of the work.

Both cars and engines are too often of a type that was common in through traffic as much as twenty or thirty years ago, and where a distinctive type of suburban engine is used at all, it, too, is one that has long since become antiquated. The ability to stop and start quickly is one of the most important features of this service, and why we are not getting the advantage of that feature is very evident.

As a type, the suburban locomotive has been practically neglected during the past fifteen years, and that it is subject to improvements that would make it proportionately as valuable to the service as are other improved types of locomotives in their respective classes of work, goes without saying.

In England there has been in use for some time a type of four-cylinder compound wherein the intercepting valve is controlled automatically by the movement of the reverse lever—this principle should prove valuable in providing a three or four cylinder compound suburban engine with the ability to accelerate rapidity with the least attention from the engineer.

With engines embodying this feature and light-weight cars, preferably vestibuled and without bulkheads, similar to those used in Subway and Elevated service, improved conditions as regards suburban traffic on steam lines would surely result.

"THE FAST FREIGHT ON THE SOO."

IN our April issue, we asked for the words of "The Fast Freight on the Soo," which is sometimes known as "An Ox Team Is Faster than a Freight on the Soo." Here she is, boys. Thank James H. Packard, operator and signalman C., St. P., M. and O. Ry. and Soo Line, at Cameron, Wisconsin, for the words:

FAST FREIGHT ON THE SOO.

BY S. E. FARNHAM.

We leave Minneapolis in the morning at seven,
Get over to the shops; do well to leave there at eleven.
We are ordered to haul all the loads in the yard,
If the wheeling is good—all the same if it's hard.

We stall up at Wilson, and double the hill,
Go back for the balance with a merry good will.
Hoping once over the hill we can make up some time,
But find orders at Marine, "haul every load you can find."

A preference load at Osceola, with orders to go.
We double to Godfrey in a blizzard of snow.
Our sand is all out, and as hungry as can be,
And four loads for the East at Spur Number Three.

What to do we don't know, only to double again,
We must haul all the loads if there's a mile in our train.
Run to Amery for water is the next thing to do,
Go back for the balance, "fast freight on the Soo."

Says the shack to the con, "Where you going to chew?
I'm nearly played out, and you look weary, too."
The con says faintly, "What's the matter with you?
At Shaffner's, in Amery, the best place on the Soo."

We arrived just in time to hear the dinner-bell ring,
Went in, found a supper that was fit for a king;
Mine host, fat and clever, the right man in his place—
An ex-con himself, with a merry, round face.

Our supper revived us, and again we will try
To get over the road, we hardly know why,
But are firmly in hopes soon to get through,
Doubling high grades with fast freight Number Two.

Our coal is all out, another tank we must take.
Drag our train up the hill, razoo Turtle Lake.
Three hours' hard switching to get the hind load,
That had laid there a week from the Omaha road.

The agent at Barron is a hustler, too,
We find him on duty at three thirty-two;
The way-freight we unload makes the poor man so blue,
He goes in, writes friends, "never come to the Soo."

We pass Brother Burton just about five,
He has hustled for the Soo till he's more dead than alive;
So we let him off easy, has been up all night,
And give them a whirl for all that's in sight.

We pound them along, about six miles an hour,
At Spur Number Ten we lose all our power.
Then double them over, to make the next town,
And breakfast at eight with old Mother Brown.

The shippers are kicking, and so is each crew,
Who run on the trains, or ship by the Soo.
Prosperity, we hope, to the Soo may befall;
'Twill be done when they go with what they can haul.

Every one is disgusted, down-hearted, or mad,
And the talk that I hear sure makes me feel sad;
But I know they are facts, I acknowledge them, too,
An ox-team is faster than time freight on the Soo.

NEW NOVEL BY A RAILROAD MAN.

A POWERFUL story of the struggles of a man who mistrusts his own courage is "The Taming of Red Butte Western," by Francis Lynde, a former railroad man. It tells how a young engineer, made superintendent for that purpose, knocked into shape a disorganized railroad, manned by untrained semi-outlaws.

It is filled with critical, yet practical, problems in railroading; it tells of the obstacles that may arise before a superintendent from the pulls of inefficient men with the directors, and from pressure brought to bear by strong and unscrupulous mining interests, from the distaste for discipline of a body of rebellious hands. It is full of adventure. It moves forward with the rush and roar of a fast express.

The author, Francis Lynde, is a railroad man of wide experience. In the early eighties, he held a position in the Denver office of the Union Pacific, worked his way up quickly to the place of head clerk, and then became passenger-agent. Then, for a time, he served in St. Paul, but later, moving to St. Joseph, he became passenger-agent for a Missouri road.

In these years he wrote considerable fiction, and gradually gave up his railroad work for writing. If you want a bully good railroad novel, get this one.

AN OLD-TIME POEM.

A KIND friend sends us the following poem, "The Fireman's Story," from an old copy of the *Waverly Magazine and Literary Repository*. It is an old-timer, indeed, but it is full of the stuff that thrills—and that never dies. We gladly add it to the great galaxy of railroad classics that have graced the columns of The Carpet:

THE FIREMAN'S STORY.

"A FRIGHTFUL face?" Wal, yes, yer correct
That man on the engine thar'
Don't pack the handsomest countenance—
Every inch of it sportin' a scar;

But I tell you, pard, thar' ain't money enough
Piled up in the national banks
To buy that face—nor a single scar—
(No, I never indulges. Thanks.)

Yes, Jim is an old-time engineer,
An' a better one never war knowed!
Bin a runnin' yar since the fust machine
War put on the Quincy road;
An' thar' ain't a galoot that pulls a plug
From Maine to the jumpin'-off place,
That knows more about the big iron hoss
Than him with the battered-up face.

"Git hurt in a mash-up?" No, 'twas done
In a sort o' legitimate way;
He got it a tryin' to save a gal
Up yar on the road last May.
I haven't much time fur to spin you the yarn,
Fur we pull out at two twenty-five—
Jist wait till I climb up an' toss in some coal
So to keep the old "90" alive.

Jim war pullin' the Burlin'ton passenger then,
Left Quincy half an hour late,
An' war skinnin' along purty lively so's not
To lay out number twenty-one freight.
The "90" war more than a 'hopin' 'em up,
An' a quiverin' in every nerve!
When all at once Jim yelled "Merciful
God!"
As she shoved her sharp nose round a
curve.

I jumped to his side o' the cab, an' ahead
'Bout two hundred paces or so,
Stood a gal on the track, her hands raised
aloft,
An' her face jist as white as the snow.
It seems she war so paralyzed with fright
That she couldn't move for'ard or back,
An' when Jim pulled the whistle she fainted
an' fell
Right down in a heap on the track.

I'll never forgit till the day o' my death
The look that come over Jim's face;
He throwed the old lever cl'ar back like a
shot,
So's to slacken the "90's" wild pace.
Then he let on the air-brakes as quick as a
flash,
An' out through the window he fled,
An' skinned 'long the runnin'-board cl'ar out
in front,
An' lay down on the pilot ahead.

Then, just as we reached whar the poor
creatur' lay,
He grabbed a tight hold of her arm,
An' raised her right up so's to throw her one
side
Out o' reach of all danger an' harm.
But, somehow, he slipped an' fell in with his
head
On the rail, as he throwed the young lass,
An' the pilot, in strikin' him, ground up his
face
In a frightful an' horrible mass!

As soon as I stopped I backed up the train
To the spot whar the poor fellow lay;
An' thar set the gal with his head in her lap,
An' a wipin' the warm blood away.
The tears rolled in torrents right down from
her eyes,
While she sobbed like her heart war all
broke—
I tell you, my friend, sich a sight as that 'ar
Would move the tough heart of an oak.

We put Jim aboard an' run back to town,
Whar for week arter week the boy lay
A hoverin' right in the shadder o' death,
An' that gal by his bed every day.
But nursin' an' doctorin' brought him
around—
Kinder snatched him right outen the grave;
His face ain't so han'som' as 'twar, but his
heart
Remains jist as noble an' brave.

Of course thar's a sequel—as story books
say—
He fell dead in love, did this Jim;
But he hadn't the heart to ax her to have
Sich a battered up rooster as him.
She knowed how he felt, an' last New Year's
Day
War the fust day o' leap year, you know,
So she jist cornered Jim an' proposed on the
spot
An' you bet he didn't say no.

He's buildin' a house up thar on the hill,
An' has laid up a snug pile o' cash,
The weddin's to be on the first o' next May—
Jist a year from the day o' the mash—
The gal says he risked his dear life to save
hers,
An' she'll jist turn the tables about
An' give him the life that he saved—thar's
the bell;
Good day, sir, we're goin' to pull out.

IT IS "GERRIT" FORT.

IN our May issue, we published a short article telling of the remarkable rise of Mr. Gerrit Fort, G. P. A. of the New York Central lines. In an unguarded moment—we might as well blame it to Halley's comet as anything else—we spelled Mr. Fort's name "Jerrit." Whether his first name begins with a "J" or a "G," we are sure it makes no difference in his keen ability to manage the big department of the big railroad which is so fortunate as to have his services.

History is full of personalities whose first names are quite unimportant. What, for instance, was the handle to Æsop's name (not that Mr. Fort is addicted to spreading fables)? "Has any one here seen Kelly?" Which Kelly? What did Chopin's mother call him when he was home from his one-night stands? The late William Shakespeare, a writing-man of no mean propor-

tions, asked the question, "What's in a name?" There has even been a query as to what has become of "Mr. Sweeney of the end book?"

But there is no doubt about Fort of the New York Central. We know where he stands, and so does the traveling public—and we are for him.

BOUQUETS AND KICKS.

AMONG our bouquets this month we have another kick. One of our readers tells us that there is something that he does not like about THE RAILROAD MAN'S MAGAZINE, in spite of the fact that he starts off by saying that he thinks it's one of the best magazines published. And, sad to say, although we would like very much to make things right in this particular case, we are at present unable to remedy the difficulty.

This particular kicker says that instead of pulling out onto the main line once a month, we ought to double up on our schedule and put on another train. Honestly, we'd like to, but the right-of-way is pretty badly crowded and we can't get orders for a clear track any oftener to save our lives.

Besides, we're working a pretty full head of steam as it is, and are so busy making up our electric-lighted, solid-vestibuled, that if we tried to get out a special in between we might lose so much time that the limited would not get out on time.

However, kicks of this sort please us almost as much as the bouquets we receive, and we're too proud of both to keep them tucked away in our locker, so here are a few on exhibition to show that we've got some friends left and that they're not afraid to stand up for us:

I have been reading THE RAILROAD MAN'S MAGAZINE now for a long time, and I think it is one of the best magazines published. The only feature I don't like about the magazine is that it don't come around soon enough. It should be published twice a month at least. I especially like the Light of the Lantern.—T. J. M., Havre, Montana.

I am a regular reader of your magazine, and that you may know how much I appreciate it, I must tell you that it is a common occurrence for me to be warned by the engineer that the steam is down, when I am reading my little red-covered RAILROAD MAN'S MAGAZINE. If it came out twice a month, I guess he would never have any steam. There is a saying on our road, the Central Railroad of New Jersey, that if it is not in THE RAILROAD MAN'S MAGAZINE, it's no good.—W. Z. B., Springfield, New Jersey.

I have been a reader of your magazine for the last few years, and take pleasure in telling you I admire it, whether it runs hot or not. I can hardly wait from one month to the next for its arrival.—J. R. H., Altoona, Pennsylvania.

I do not know whether you will want a letter from me or not, but I think every one who has read THE RAILROAD MAN'S MAGAZINE sure has a "put in," and should give the magazine a boost. I have been reading it ever since it has first started, and I think that it is the best magazine on the market. The stories are the best that I have read in any book.—G. H. M., Honolulu, H. T.

I have been a constant reader of THE RAILROAD MAN'S MAGAZINE for some time. I can hardly wait till the time comes to get it. I am hard to please in reading matter, but THE RAILROAD MAN'S MAGAZINE certainly pleases me. I sometimes sit up till the roosters crow in the morning, reading it.—P. McI., Detroit, Michigan.

I am not a railroad man, but am a watchmaker, and like to see the wheels go round. For the past two years THE RAILROAD MAN'S MAGAZINE has helped wonderfully to oil the bearings of the wheels of time for me. I never miss an issue, and have taken quite an interest in its problems.—L. C. M., Goldendale, Washington.

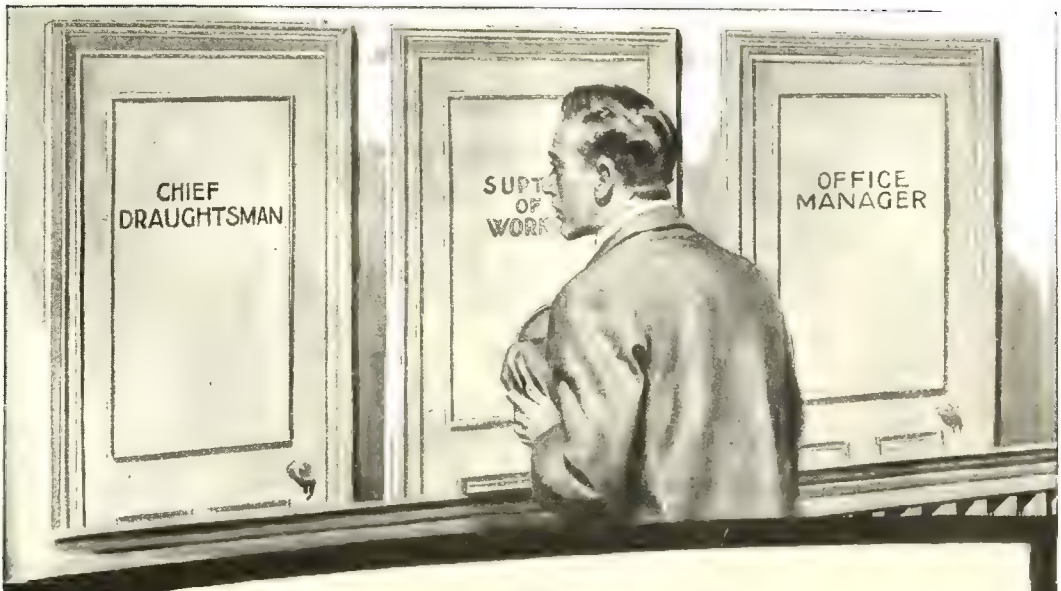
I take eight magazines besides THE RAILROAD MAN'S MAGAZINE, but I find it the best of them all.—C. R. D., Alford, Pennsylvania.

I have been reading THE RAILROAD MAN'S MAGAZINE since copy number one, and have not failed to get every copy since it was first printed. I am greatly interested in the stories and poems.—B. C. M., Garfield, Kansas.

I have never seen any letter of praise or a kick from this part of the world, so will send in my bouquet. I have been taking THE RAILROAD MAN'S MAGAZINE for over a year. Once a person starts to read the magazine, it becomes a habit that one won't quit. My copies are read by three families. Then, if there is anything left of the book, I hand it over to the telegrapher at Reed's Spring. Give us a few more "Tragic Train Orders," some more of Horace Herr's and Emmet Harte's pen pictures, and some more slang stories like "The Excitement Special." The serials are all good. The magazine is an education to any one who will read its articles.—L. E., Garber, Missouri.

AMONG THE MISSING.

F. E. HEDGER, a railroad man formerly employed by the Illinois Central Railroad, is reported among the missing. Information regarding his whereabouts is requested by N. A. Hedger, White Cloud, Michigan.



What Position Do YOU Want?

Is there some position "higher up" that you have your eyes on, but which requires *special training* to secure and *hold?* Is there some line of work that appeals to you more strongly than the one in which you are now engaged, but which calls for *expert knowledge?*

Summed up—*is lack of training keeping you back?* If so, the International Correspondence Schools have a way by which you can advance—a way that is within your means—that doesn't rob you of your working time—that doesn't necessitate your leaving home—that doesn't mean giving up the little pleasures of life.

Mark the attached coupon and learn *how the I. C. S. can advance you.* Marking it costs you nothing and yet brings you information and advice that *will help you shape your career*—information and advice that you cannot get elsewhere at any price.

A Better Position For YOU

Mark the coupon and learn how the I. C. S. can change you from a dissatisfied to a satisfied man—how it can fit you *for your chosen occupation*—raise your salary—make you successful.

The I. C. S. can do all this. This is proved by the 300 letters received *every month* from students who VOLUNTARILY report better salaries and positions *as the direct result of I. C. S. help.* During April the number was 338.

Your advancement rests with YOU. The first step forward is the marking of the coupon. The I. C. S. method is adapted to meet *your* particular needs and means.

"Better Position" Coupon

INTERNATIONAL CORRESPONDENCE SCHOOLS,
Box 1003, SCRANTON, PA.

Please explain, without further obligation on my part, how I can qualify for the position before which I have marked X.

General Foreman	Electrical Engineer
R. R. Shop Foreman	Machine Designer
R. R. Traveling Eng.	Electrician
R. R. Trav'g Fireman	Mining Engineer
Locomotive Engineer	Mine Foreman
Air-Brake Instructor	Foreman Machinist
Air-Brake Inspector	Chemist
Air-Brake Repairman	Assayer
Mechanical Engineer	Architect
Mechanical Draftsman	Bookkeeper
R. R. Construction Eng.	Stenographer
Surveyor	Ad Writer
Civil Engineer	Automobile Operator
Banking	Concrete Engineer

Name _____

Employed by _____ R. R.

Employed as _____

Street and No. _____

City _____ State _____

Keepkool UNDERWEAR

TRADE MARK

LET Summer breezes fan your body through the myriad pores of *Keepkool* Underwear. Enjoy the grateful silky feel of the sheer, but strong, *Keepkool* fabric—the sense of freedom and comfort given by the springy texture of *Keepkool*.

KEEPKOOL is the only Elastic Ribbed, Porous Underwear

Made in knee or ankle length drawers, short or long sleeves and athletic shirts.
Ask your dealer for *Keepkool* Underwear.

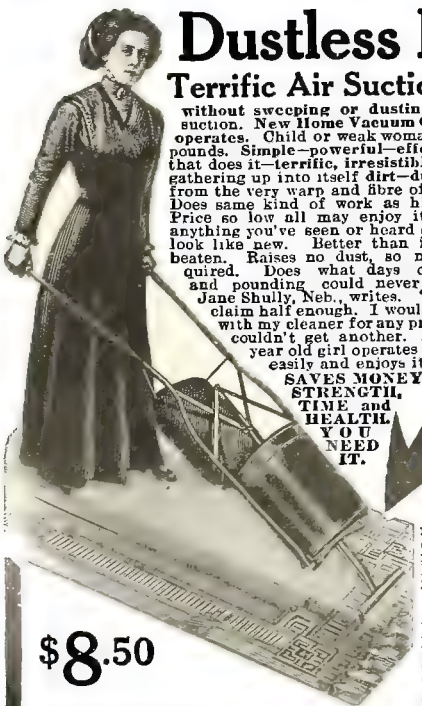
Men's Separate Garments **50c** **Boys'** Separate Garments **25c**

Men's Union Suits $1.00 **Boys' Union Suits 50c**

Catalog and sample of fabric on request.

FULD & HATCH KNITTING CO.
Dept. H, Albany, N. Y.

Dustless Housecleaning



Terrific Air Suction. Rushing, whirling, sucking air cleans carpets, rugs, mattings on floor, without sweeping or dusting. No motors, no electricity. Constant suction. New Home Vacuum Cleaner. New principle. One person operates. Child or weak woman can handle easily. Weighs nine pounds. Simple—powerful—effective. It's the constant suction that does it—terrific, irresistible, sure. Sucking, drawing—gathering up into itself dirt—dust—grit—germs and grime from the very warp and fibre of carpets, rugs, mattings. Does same kind of work as high priced machines. Price so low all may enjoy its benefits. Unlike anything you've seen or heard of. Makes carpets look like new. Better than if taken up and beaten. Raises no dust, so no dusting required. Does what days of sweeping and pounding could never do. Mrs. Jane Shully, Neb., writes. "You don't claim half enough. I wouldn't part with my cleaner for any price, if I couldn't get another. My ten year old girl operates mine easily and enjoys it."

SAVES MONEY, STRENGTH, TIME and HEALTH. YOU NEED IT.

MAKES DUSTLESS HOMES

You Can Abandon Brooms, Brushes, and Dust Cloths.

They don't clean your rugs and carpets. Brooms and sweepers fill the air with clouds of unhealthy disease-laden dust and germs and remove only surface dirt. New Home Vacuum Cleaner sucks up not only surface dirt, but all dirt, dust, grit and germs from in and beneath. Disturbance and upheaval of house-cleaning unnecessary. Stop short! Put drudgery behind you—leisure and health before. In New Home Vacuum Cleaner lies your salvation from household slavery. Adopt the new—easy—modern—sanitary—scientific way of cleaning.

Price $8.50. Sent Anywhere.

Not Sold in Stores.

Think of it! Not $100, $50, nor even $25—only $8.50. Think! what a small price for such a wonderful invention. What's $8.50 compared to a neat, clean home; when you can banish forever the drudgery of sweeping—cleaning—dusting; when there will be no more carpets and rugs to take up and beat. We guarantee New Home Vacuum Cleaner to be just as represented or your money back. Comes set up ready for use. You will be delighted—enraptured with it. Mrs. Henry Deller, R. I. "I must thank you for telling me of your wonderful cleaner. What a God send it is to women. I have not felt so rested in years. Work now easy. Plenty of spare time. Don't see how you can sell it so cheap." Don't wait; don't hesitate. **Order now.** You risk nothing. To try a New Home Cleaner means to want it—then to keep it. Every cleaner tested before shipping—guaranteed as represented or money refunded. Send for a cleaner now.

Agents are Making Big Profits.

Women excited—eager to buy as soon as they see how beautifully it works. No trouble to make sales—no experience required. Just demonstrate—that's all. Shown in three minutes—sold in five. O. E. Goff, Mo., says: "Sold five cleaners last Saturday; my first attempt. W. H. Morgan, Pa., "Sold 45 cleaners in 25 hours." It's immense. So simple—so cheap. Yet so good, all buy. YOU make money. YOU get these big profits. Write a card now. Get our liberal proposition.

$8.50

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Our Great Special—Ladies' Watch Solid Gold, polished, raised star; Genuine Diamond, perfect in cut and full of fiery brilliancy; choice of Elgin or Waltham movement. Extraordinary value at $25. Easy payments, $2.50 per month. Guaranteed to keep accurate time.

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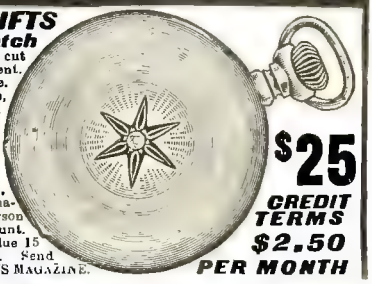

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Branches: Pittsburg, Pa., and St. Louis, Mo.

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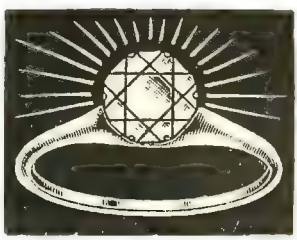
LOOK AS WELL WEAR AS WELL COST 80% LESS

Than Genuine Diamonds



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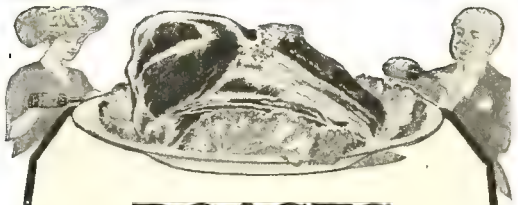
Dept. E R 7, Las Cruces, New Mex.
Exclusive Controllers of the Mexican Diamond.



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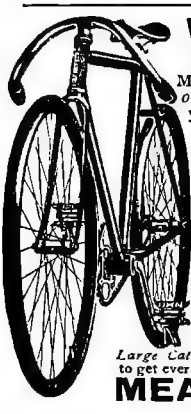
It brings out the best flavor of Soups, Fish, Steaks, Veal, Stews, Chops and Salads.
"It is a perfect seasoning."

Beware of Imitations.

JOHN DUNCAN'S SONS, Agents, New York.



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Empire Auto. Institute, 470 Empire Bldg. Rochester, N. Y.

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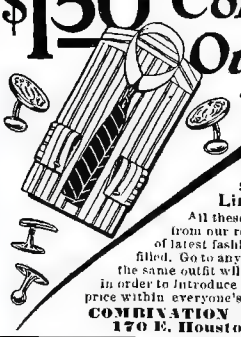

This is our great introductory offer:

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All these are first-class merchandise, taken from our regular stock. The shirt and tie are of latest fashion; the links and cuff buttons gold filled. Go to any other retail store in the country and the same outfit will cost $3, but we make a price of $1.50 in order to introduce you to New York haberdashery at a price within everyone's reach. We pay all delivery charges.

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If you will lend us one hour of your spare time each day for about twelve weeks, we can prepare you as an automobile salesman, demonstrator or chauffeur. We assist our graduates to positions with wealthy owners and manufacturers,—people who want high-class, competent men and are able to pay well for them.

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In a neat metal case that keeps it in the best of condition.

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30 Days Free Trial
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No Cash Payments Down.
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We Pay the Freight

This Parlor Grand Meister is remarkable for its full rich tone and the beautiful style of its case which is of genuine mahogany, double veneered throughout. Modern improved construction and finest of materials used. Try it a month without a penny of cost and get your own ideas of its mellow tone and artistic appearance.

If it isn't the best piano you ever saw or heard at the price, we will send for it and **pay the return freight.**

Send for the Meister Piano Catalog which contains colored illustrations and details of construction. Send today.

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Munsey's Magazine	$2.50	Special Combination Rate $5.50
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A DEPARTMENT maintained for the small advertiser and for the convenience of the reader in quickly locating a wide variety of necessities for the home, the office, the farm, and for the man or woman who seeks business opportunities. There is virtually no want that may arise which cannot be supplied in these classified advertising pages.

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$25 WEEKLY AND EXPENSES to men and women to collect names, distribute samples and advertise. Steady work. C. H. EMERY, C13, Chicago, Ill.

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BECOME A MERCHANT—Without investment of a penny we help you to a highly profitable business by handling our Handy Dandy tailoring outfit. Hundreds of our agents are prosperous merchants. Outfit sent absolutely without cost to you. Write to-day. No experience required. WHITNEY TAILORING CO., 216 E. Van Buren St., Chicago.

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WE START YOU IN A PERMANENT BUSINESS with us and furnish everything. We have new easy-selling plans and seasonable leaders in the Mail Order line to keep our factories busy. No canvassing. Small capital. You pay us out of the business. Large profits. Spare time only required. Personal assistance. Write today for plans, positive proof and sworn statements. PEASE MFG. CO., 1186 Pease Building, Buffalo, N. Y.

ASK US HOW to start *Legitimate* Mail Order business on small capital. We have no "schemes" or "outfits" to sell, and will tell you the *unvarnished truth.* MAIL ORDER LIBRARY, 509 Fifth Avenue, New York.

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LOCAL REPRESENTATIVE WANTED — Splendid income assured right man to act as our representative after learning our business thoroughly by mail. Former experience unnecessary. All we require is honesty, ability, ambition and willingness to learn a lucrative business. No soliciting or traveling. This is an exceptional opportunity for a man in your section to get into a big-paying business without capital and become independent for life. Write at once for full particulars. Address E. R. Marden, President, THE NATIONAL CO-OPERATIVE REAL ESTATE CO., Suite 359 Marden Building, Washington, D. C.

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YOUR LOOSE TEETH can be made solid again, the recession of the gum checked. "Usmerja Forhan's" is a Specialist's Cure for soft, bleeding, suppurating or pus discharging gums. Mailed for $2.00. Can be purchased only through us. This is what is used in Dr. R. J. Forhan's practice for the cure of this disease, for which his minimum fee is $100.00. Us-Mer-Ja Chemical Company, Suite 908 Wills Bldg., 256 5th Ave., New York City.

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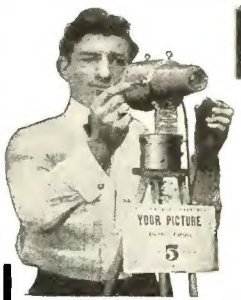

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This is what hundreds of our operators are now earning. **Why not you?**

The Wonder Cannon Camera

is the biggest money-making device on the market, for carnivals, picnics, fairs and street parades, on street corners, and in fact everywhere people gather.

The Cannon Camera makes 8 finished photo buttons in one minute, ready to wear.

Positively No Experience Required

Complete instructions go with every outfit and are simple enough to enable you to learn the business in 30 minutes.

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Additional Button Plates
$1.00 per hundred
Additional Gilt Frames
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FREE CATALOG

Chicago Ferrotype Co.
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In answering any advertisement on this page it is desirable that you mention The Railroad Man's Magazine.

Dr. Jekyll *and* Mr. Hyde At the Telephone

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In every use of the telephone system, three human factors are brought into action—one at each end, one or both anxious and probably impatient, another at the central office, an expert, at least as intelligent and reliable as the best stenographers or bookkeepers.

For the time being, this central office factor is the personal servant of the other two and is entitled to the same consideration that is naturally given to their regular employees.

Perfect service depends upon the perfect co-ordinate action of all three factors—any one failing, the service suffers. This should never be forgotten.

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The marvelous growth of the Bell System has made the use of the telephone universal and the misuse a matter of public concern. Discourtesy on the part of telephone users is only possible when they fail to realize the efficiency of the service. It will cease when they talk over the telephone as they would talk face to face.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
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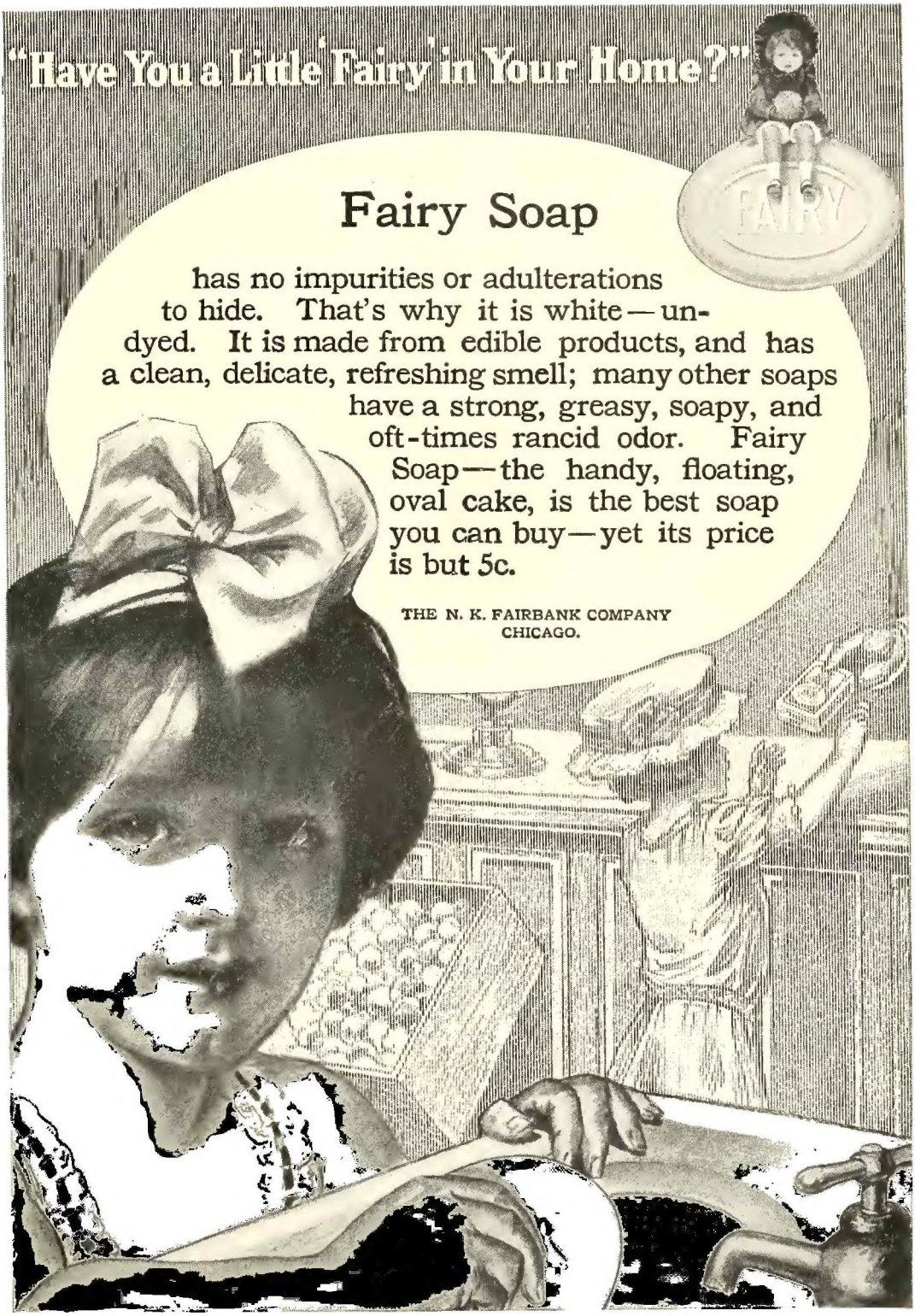
One Policy, One System, Universal Service.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Kellogg's TOASTED CORN FLAKES

The Kind with the Flavor —
Made of the Best White Corn

THE GENUINE ALWAYS HAS THIS SIGNATURE

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